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Clinical Lecture.

LECTURES ON THE TREATMENT OF HEPATIC DISEASES.[1]

(E. P. HURD, M.D., TRANSLATOR.)

BY DR. DUJARDIN-BEAUMETZ.

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THE GLYCOGENIC LIVER (PHYSIOLOGICAL CONSIDERATIONS).

LECTURE V.

GENTLEMEN: In previous lectures we have studied the liver as an agent of the destruction of organic poisons, then as the gland that secretes the bile; to-day I propose to take up a subject that possesses quite as much interest, namely, the liver considered as a producer of glucose—the glycogenic liver.

You will see that, notwithstanding the numerous researches which have been undertaken to elucidate this subject, and which seemed for a long time to give complete corroboration to Claude Bernard, who first discovered the glycogenic functions of the hepatic gland, you will see, I repeat, that this question has come up anew for study by reason of the discovery of a glycosuria of pancreatic origin. It seems then that in proportion, as our methods of investigation are perfected, the solution of this grave problem of physiology and clinical therapeutics is farther and farther from being realized.

It was in 1848 that Claude Bernard made known his first experiments, experiments which he had been pursuing for long years, and we may truly say that the sum of these labors constitutes an admirable scientific work, and one of the most splendid titles to glory of our illustrious physiologist. I know of but few conclusions more logically deduced, of deductions more ingenious and true than those which flow from the innumerable researches made by Claude Bernard, and all who would understand and appreciate the new scientific methods opened up by physiology, cannot do better than to spend days and nights in the study of Claude Bernard's works.[1]

It was, in fact, upon a congeries of demonstrative proofs that the latter established the glycogenic function of the liver. He began by analyzing the hepatic tissue and there noticed the presence of sugar in the proportion of 1 to 2 per cent. Then he analyzed the blood entering the liver and the blood leaving it, and found that even when the blood of the portal vein contained no glucose, that of the hepatic veins always contained it. He showed then, that there is a special carbo hydrate body within the hepatic cells which furnishes this sugar, and that this substance persists after death, and the proof which he gave was peremptory. It consisted in taking the liver and

[1] The previous lectures of this series appeared in *The Therapeutic Gazette*. We are happy to announce that the remaining lectures have been secured for THE TIMES AND REGISTER, by Dr. Hurd; and will appear simultaneously with their publication in France.

[1] Cl. Bernard, Nouvelle Fonction du foie considéré comme organe de la matière sucrée. Paris, 1853; Leçons de Physiologie expérimentale, t. I; Leçons sur les substances toxiques et médicamenteuses; Leçons sur les propriétés physiologiques et des altérations pathologiques des liquides de l'organisme; Leçons sur la physiologie et la pathologie du système nerveux; Leçons sur la glycogénie (Revue Scientifique, 1872); Critique expérimentale sur la formation du sucre dans le sang et sur la fonction de la glycémie physiologique (Compte rendue de l'Académie des sciences, Avril, 1876); Leçons sur le diabète et la glycogénie animale, 1877.

passing a current of water through its tissue; this water becomes charged with glucose.

Claude Bernard then gave the name of glycogen to this particular substance, which he isolated in 1857. This glycogen is isomeric with starch and has for its formula $(C^6H^{10}O^5)+H^2O$. This formula is the same as that of inulin and amylo-dextrine. This correspondence led him to give a name of animal starch to the saccharine substance he had discovered; it has also been called *hepatin* or *bernardin*. This substance can be got pure, as you know, and then you obtain a white powder which swells under water like starch. This body, in the presence of diastase and of ferments, is transformed into achro-dextrine and into maltase.

This glycogen is in variable quantity in the hepatic tissue; chemists have reckoned from 13 to 17 per cent.; but do not forget that it has not its exclusive seat there, and it is also found in the muscles, the white globules, and the embryonic tissues.

But for this animal starch a ferment is necessary. This ferment is found in the hepatic cells, and Claude Bernard also isolated it by alcohol.

As you see, we may divide this sugar production in the liver into two acts, as Viault and Jolyet have done in their "Treatise on Physiology;" an amylogenous act, in which glycogen is fabricated at the expense of the glucoses and peptones absorbed, and a glycogenous act, which results from the transformation of the animal starch thus accumulated in the liver into glucose. These two acts have for their end to maintain in the blood a given quantity of sugar, which may be estimated at from 1 to 2 grammes per 1,000, sugar which is burned in the different acts of life, and whose combustion serves to maintain the animal temperature. The liver plays, so to speak, the rôle of regulator in this glycogenic function. It stores up the glucose under the form of glycogen, to pour it forth into the blood at a given moment when it is needed. But when the quantity of sugar in the blood becomes more considerable, when there is hyperglycæmia and the figure of 2.50 grammes per 1,000 is attained, the sugar passes into the urine; then we note glycosuria. Where do these two physiological acts take place—the amylogenous act and the glycogenous act? In the hepatic cell itself, and when this is destroyed this double function disappears; and I shall show you, as we go on, what conclusions we are to derive from this fact from the point of view of the pathogeny of diabetes.

It was not enough for Claude Bernard to have shown by the concatenation of his works the glycogenic rôle of the liver; he studied the influences that modify this glycogenic function, and he brought to his researches that admirable scientific method which has illustrated the most of his works; and it is upon these influences that I am going now to insist, for they constitute, for us who place ourselves on a clinical basis, the most important point of this physiological question.

In fact, according as the glycogenic functions of the liver are augmented, or as the combustion of the glucose poured into the blood is diminished, we shall see hyperglycæmia produced, and when once the figure of 2.50 grammes per 1,000 is exceeded, we shall have glycosuria, *i. e.*, a physiological state which we must combat.

The influence of the nervous system is especially predominant. Claude Bernard showed that there exists on the floor of the fourth ventricle a center which governs this glycogenic function, and that it is easy in animals to produce an experimental glycosuria by pricking this region of the medulla oblongata. Before we knew anything about pancreatic diabetes, this was the sole method at our disposal for artificially inducing glycosuria in animals. Unfortunately, this experiment can give us no help from a therapeutic point of view, for the glycosuria thus determined in animals is but temporary, the animal getting well in a few days.

We have no very clear explanation why lesions of the floor of the fourth ventricle should affect in any way the glycogenic functions of the liver, but such an influence really exists, and we have a striking illustration of this in an experiment of Winogradoff, who found that in frogs deprived of their liver the nervous lesion above mentioned does not cause glycosuria.

It is probable that it is by modifying the functions of the hepatic cells and the conditions of nutrition which govern them that these lesions of the nervous system act. However this may be, clinical medicine has made due account of these experiments, and you will see, as you continue your studies, how great is the influence of the nervous system in the production of diabetes. There are even instances of diabetes whose efficient cause is a traumatism affecting the encephalon, so that pathologists have been able to create a group of diabetics (or glycosurics) of nervous origin.

We have just said that the liver is the regulator of physiological glycæmia, and it is owing to this organ that the proportion of glucose in the blood is maintained at 2 per 1,000. But two circumstances may modify this equilibrium: when the liver produces too much sugar, or when the economy burns too little.

To the first group belongs what has been described under the name of *alimentary glycosuria*. The man or the animal ingests an excess of glucose, and there is alimentary hyperglycæmia. I must, however, remark, in this connection, that it is by no means easy in a perfectly healthy animal, to produce this hyperglycæmia by giving the animal saccharine food.

In some experiments which I have made to determine the diuretic properties of glucose, experiments which you will find reported in the thesis of one of my pupils, Dr. Sophie Meilach,[1] I found that it was necessary to give to rabbits 70 grammes of sugar per kilogramme of the weight of the body in order to obtain alimentary glycosuria. However this may be in man, this glycosuria is produced under the influence of certain predispositions, without which this pathological phenomenon is absent.

When animals are subjected to prolonged abstinence, the glycogenic function of the liver is suppressed. This is a fact which enters into the category of alimentary glycosuria, and confirms its existence. In other circumstances, it is because the sugar is not burned in the economy. It is in this way that asphyxia determines hyper-glycæmia; and it is thus that we explain the glycosuria that is produced by certain poisons. In fact, I believe that the glycosuria which has been observed after the administration of ether, of chloroform, and of certain medicaments, such as the mercurials, morphine, chloral, etc., is due to this fact, that these medicaments modify the blood, prevent the destruction of sugar and thus become causes of toxic hyper-glycæmia.

Among the medicines which determine this toxic hyper-glycæmia, I must mention phloridzin, whose action has been chiefly studied by Mering. This

[1] Sophie Meilach, "Les sucres comme diurétiques" (*Thesis de Paris*, 1889).

phloridzin, when introduced in subcutaneous injections or by mouth, causes in animals an energetic glycosuria which is continued as long as the medicine is administered. At the same time, I must remark in this connection that we have here an experimental diabetes, which may be produced apart from all action of the liver, for the frog, even when deprived of that organ, becomes diabetic under the influence of this medicament. It is probable that phloridzin, which is a glucoside obtained from the bark of the roots of certain fruit trees, such as the pear tree, the apple tree, etc., is transformed directly in the economy into glucose without any help from the liver or pancreas. This question of toxic hyper-glycæmia will now serve as a point of transition to the study of pancreatic diabetes.

I have told you that the liver pours into the blood a given quantity of glucose; this quantity is very high, if we may rely on the figures of Bouchard, who estimated it at almost two kilogrammes (1850 grammes) in the twenty-four hours.

These two kilogrammes are burned by the respiration and by the muscular activity, but they are also destroyed by the blood, and to this destructive power of glucose possessed by the blood has been given the name of *glycolitic power*. It is to this subject that Lépine and his pupils, Artaud and Barral, have devoted a series of communications, the first of which dates from December 29, 1889, and which have demonstrated this destructive power over sugar possessed by the blood. They have endeavored to show that this glycolitic action is due to a ferment localized in the globules, and that this ferment is secreted by the pancreas, which goes to explain that form of diabetes called pancreatic.

In fact, in 1877, in a communication made November[1] 13, to the Academy, our colleague and friend, Lancereaux, showed that the grave forms of diabetes to which has been given the name of *lean diabetes* (*diabetes maigre*) are accompanied by pancreatic lesions more or less pronounced. The frequency of these alterations in the cases of grave diabetes is such that we may regard these grave forms as the equivalent of *pancreatic diabetes*.

In his communication, Lancereaux called attention to the known facts of alteration of the pancreas accompanying glycosuria, and showed that the first of these observations goes back to 1879, and was reported by Cowley.[2] This fact, belonging to pathological anatomy, was verified by the successive observations, and you will find the data pertaining thereto set forth in the thesis of a pupil of Lancereaux, Dr. Lapierre, a thesis which was published in 1879.[3]

In 1881, Baumel, of Montpellier, published some observations respecting the lean form of diabetes, and even of the fatty form, which were accompanied by lesions of the pancreas.[4]

[1] Lépine, Lyon Médical, Décembre, 1889; Semaine médicale 1890, p. 182 et 221; Revue scientifique, 28 Février, 1890.—Lépine et Barral, Compte rendu de l'Académie des sciences, 23 Juin, 1890; 23 Février, 1891; 20 Juillet, 1891; Congrès de Marseille, 1891.

[2] Lancereaux, Notes et réflexions à propos de deux cas de diabète sucré avec altérations du pancréas (Académie de médecine, 13 Novembre, 1877).—Cowley, Journal de médecine et de chirurgie, 1789.

[3] Lapierre, Thèse de Paris, 1879.

[4] Baumel, Pancréas et diabète (Montpellier médical, Novembre, 1881, Janvier et Mai, 1882).—Un mot d'historique sur le diabète sucré; sa théorie pancréatique (Académie des lettres et sciences de Montpellier, Juin, 1891.)

This pancreatic diabetes, which was established by clinical medicine, was further proved by experimentation in 1889 to be a fact of pathology, the authors of the experimentation being Von Mehring and Minkowski, who, in studying the functions of the pancreas, were the first to show that total extirpation of that gland entails in animals saccharine diabetes of great gravity. But this experimental diabetes, instead of being of temporary duration like that provoked by lesions of the nervous system, is permanent, and entails the death of the animals.[1]

Many years before, physiologists had made experimental investigations to ascertain the effects of injuries to or of extirpation of the pancreas, and I need only recall to mind those of Claude Bernard in 1856, of Berard and Collins in 1858, of Schiff in 1872, of Klebs in 1873, of Feinkler in 1879, of Senn in 1878, and of Martinetti the same year; but these experiments had given contradictory results, and this by reasons of the difficulties of the operation, the disasters which it produced, and the rapid death of the animals thus operated upon.

At the same time I must remind you that Bouchardat and Sandras in their first studies upon the pancreas had remarked this interesting fact, that in animals which had been deprived of their pancreas there supervened phenomena of inanition, and that these animals became voracious and emaciated rapidly.

The experiments of Von Mehring and Miakowski showed the same fact without giving the explanation. Since then, these experiments have been often repeated, and I may allude in particular to those of Hédon, of Montpellier, who twenty three times practiced total extirpation of the pancreas. In the first ten experiments the operation caused the death of the animals. But when he changed his method and made the operation in two periods, *i. e.*, when he took care to destroy the head of the pancreas by a first operation, and eight days after proceeded to the extirpation of the remaining portion, he obtained the survival of the animals, and in all these cases he noted a constant and persistent diabetes.

The animals became voracious, they emaciated with great rapidity, and quite recently, Lancereaux[2] exhibited to the Academy a dog on which his interne, Thirolix, had practised total ablation of the pancreas, and which presented all the symptoms described by Von Mehring, Miakowski and Hédon.[3]

We see, then, that in opposition to the views of certain experimenters, and in particular of Reali and Renzi, it is now settled that total extirpation of the pancreas in animals produces a diabetes that is enduring and mortal, and if there is a difference of opinion among experimenters respecting the results obtained, this is explained by the fact that is necessary that the extirpation of the gland should be total, since partial extirpation does not produce diabetes.

It now remained to explain these results; this is what Lépine, Barral and Arnaud have done in making known the glycolitic power of the blood.

To-day, in relying on the experiments of Lépine, of Gley and of Hédon, we are warranted in believing that the pancreas is a gland having important relations to the vascular system, and that it discharges into the network of vessels surrounding it a special

[1] Von Mehring et Minkowski, Archiv. für Experimentelle Pathologie und Pharmakologie, 1891.

[2] Lancereaux, Pancreatic Diabetes (Acad. de Medécine, Sept. 22, 1891).

[3] Hédon, Archives de Medécine Experimentale, 1891.

ferment which gives to the blood the power of destroying the sugar therein contained.

I admit that this is still but an hypothesis, for if we refer to the numerous experiments undertaken to elucidate this point during the year which is passed, we shall see that they are often contradictory, and this results from the experimental difficulties presented by the total ablation of the pancreas in animals, and the disorders which are the consequence of such ablation. For the question has been asked, and rightly, if in traumatisms of this sort, the diabetes might not be the consequence of the numerous lesions inflicted on the cœliac plexus of nerves surrounding the pancreas, or if the troubles of nutrition noted might not depend on the suppression of the pancreatic juice, which entails in animals a very rapid emaciation.

However this may be, to the liver, which, since the discovery of Claude Bernard is known to regulate physiological glycæmia, we must henceforth add the pancreas as having a share in this function; and while the liver pours into the blood the glucose necessary to maintain the glycæmia at a constant rate, the pancreas by the ferment which it discharges into the blood destroys a certain quantity of this glucose, and when this ferment is no longer secreted, there supervenes, by the fact of this suppression, a hyperglycæmia leading to glycosuria. In other words, as you see, the glycogenic functions of the liver are completed by the destructive power over sugar possessed by the pancreas.

Is the liver the only glycogenic organ in the economy? By no means, and to the liver we must join other organs, as the muscles of the embyro, which contain, according to Claude Bernard and Nasse, a glycogenic substance similar to that of the liver (embryonic glycogenesis). According to Rouget, Pavy and Noroschiloff, glycogen is found in the adult in many of the tissues.

Lastly, in the physiological state, during lactation, the females of all mammals secrete a particular sugar, lactose, which constitutes a mammary glycogenesis, and the sugar thus formed comes from a special glycogen which is fabricated by the epithelium of the mammary glands, as some say, out of the albuminoid principles of the blood.

So then, to sum up, there exist from a physiological point of view, three kinds of glycogenesis—an embryonic glycogenesis, a mammary glycogenesis and a hepatic glycogenesis, this latter being regulated in part by the pancreas.

The two first are temporary, the one existing during embryonic life before the formation of the liver, the other in the woman and in the females of mammals during lactation; the third and last belongs to the great function of physiological glycæmia. It is with this kind that we have to do in our endeavors to explain the hyperglycæmia which entails a glycosuria more or less persistent; in other words, we come now to the theories of diabetes.

You observe that I have employed indifferently in this lecture the words diabetes and glycosuria. It is because I find it very difficult to make any distinction between diabetes and glycosuria. It has indeed been affirmed that glycosuria is but a temporary symptom which might even, under some circumstances, be almost physiological, while diabetes is only applicable to a pathological state, to a real general disease.

This is a matter of theoretical rather than clinical and practical interest, and I shall continue to use these two terms in a synonymous sense, as applicable to that particular state characterized by the presence of glucose in the urine, and I shall take up the study of the theories of diabetes by beginning with pancreatic diabetes.

I shall be very brief on this point, because we as yet know very little of pancreatic diabetes. If we are warranted in thinking that this form of diabetes is always grave, the "lean diabetes" of former times, we are not warranted in affirming that the connection is invariable, for there have been cases of fatal diabetes in lean people where the autopsy has shown no lesion of the pancreas, and for my part I have observed one of these cases recently in my service at Cochin Hospital. In a patient who had succumbed to "lean diabetes," it was impossible to find any appreciable lesion of the pancreas.

On the other hand, there are cases of "fatty diabetes" with pancreatic lesions. Baumel observed one such case. When we refer to the very numerous observations where pancreatic lesions have been noted, we see that there exists a very great difference between the microscopic lesions observed and the experimental facts.

What lesions, in fact, has the autopsy disclosed? Atrophy more or less partial, obliterations of the canal of Wirsung, lastly scleroses, and veritable cirrhoses, which rarely completely alter the gland in its entirety; while, on the contrary, experimentation shows that it is the total destruction of the pancreas which entails diabetes, the partial destruction producing only an azoturic diabetes.

However this may be, Lépine has maintained that in diabetics there exists a diminution in the glycolitic power, and that it is this diminution which explains the hyperglycæmia, the cause of the glycosuria. This diminution in the combustive power over sugar possessed by the blood may result from the diminution of the secretion of a special ferment formed by the pancreas. But one would naturally also find this diminution in cases of hepatic diabetes.

Now, this diminution in the glycolitic power of the blood, which has been said to exist in all diabetics, and which has been noticed by Lépine and Barral in five diabetic patients, is affirmed by other observers not to be always constant. Sançoni and Arthus[1] claim to have found, by following the process described by Barral, a glycolitic power even more considerable than in the normal state, and Lépine admits that when the blood is excessively rich in glycogen in the diabetic, one may note this paradoxical result.

Lastly, from an experimental point of view, Gaglio, of Bologne, affirms that when, after ablation of the pancreas, the operator takes care to tie the thoracic duct, the experimental glycosuria disappears. I well know that Lépine[2] has replied to this objection that in the facts to which Gaglio refers it is by reason of the septicæmia that this experimental diabetes disappears, but, in any event, we see how contradictory are still the facts relating to the glycolitic power of the blood in diabetics, invoked by Lépine to explain the glycosuria, and the different hypotheses made with reference to this subject by the Lyons professor.

Much more numerous are the theories of diabetes of exclusively hepatic origin; Bouchard counted thirty in 1880. It may be affirmed that they exceed that number to-day, since we have come to know about pancreatic diabetes. I shall not occupy your time with these theories, for they possess, from a therapeutic point of view, only a secondary interest.

[1] Sançoni, *Riforma Medica*, Juillet, 1891, Nos. 160, 161, 162; Arthus, *Archives de physiologie*, 1891, No. 3.

[2] Lépine, "Pathogénie du diabète, réfutation de quelques objections" (*Annales de médecine*, 4 Novembre, 1891, p. 330).

When you survey in their aggregate the theories of hepatic diabetes, you see that they can all be reduced to two principal types. In the one there is exaggeration of the glycogenic function of the liver, which pours into the blood more glucose than is necessary for the maintenance of the organic functions; in the other the quantity of glucose secreted by the liver remains the same, but the combustion of the sugar yielded up to the blood is incomplete.

Let us rapidly examine these two theories. The first was first broached by Claude Bernard, and has the support of his authority. Lecorché, as more recently Albert Robin, have presented this theory under a new form; they maintain that diabetes results from too great functional activity of the hepatic cells, and in his communication to the Academy, Robin, basing himself on the analysis of the urine, has affirmed that in the diabetic there is augmentation in the oxidations.

The other doctrine has had Bouchard for its defender. Bouchard declares that diabetes results from the fact that the economy does not consume the sugar secreted by the liver, and that this failure in combustion is itself produced by a diminution in the functions of nutrition; therefore he classes diabetes among diseases caused by retardation of nutrition.

I may remark that the recent theories of pancreatic diabetes give an explanation which is somewhat similar, for Lépine affirms that it is in a diminution of the destructive power over glucose possessed by the blood (glycolitic power) that the cause of diabetes resides. It is very difficult to decide between these two theories, and this for the reason that I believe that both may be true, for diabetes is not one, it is multiple; and if, in fact, in the greater number of cases it is at the period when life declines, when the general functions of the economy are enfeebled, when nutrition languishes, that we see diabetes appear—it is none the less true that we observe other cases where it is at the moment of vigorous development of the organism, from the ages of fifteen to thirty, that we see this affection supervene. It constitutes then what is called the diabetes of the lean in opposition to the diabetes of aged people, which has been described under the name of "fatty diabetes;" and it seems to me very difficult to attribute a common pathogeny to these two affections so different in their course: diabetes of the corpulent, where by an appropriate regimen we may arrest the affection; diabetes of the lean, where, despite all our efforts, death supervenes in a relatively short space of time.

There exist, then, several kinds of diabetes; each may have a different pathogeny, and I am pleased to see that Lépine, the author of the theory of pancreatic diabetes, takes the same view. "Diabetes results," he says, "from excessive production or supply of sugar relatively to its destruction; the rupture of the equilibrium between the sugar supplied and the sugar destroyed may be brought about in different ways. There are, then, several kinds of diabetes."[1]

But what I desire to impress upon you is the following point, which does not seem to me to have been sufficiently elucidated by the numerous observers who have given especial attention to the subject; I refer to the necessity of the integrity of the functions of the liver for the maintenance of glycosuria.

I have seen a great many diabetic patients, and I have been able to note a number of times the following fact: When in a case of "fatty" diabetes of average intensity, *i.e.*, where by means of a dietetic regime scrupulously carried out, the proportion of sugar voided daily falls below 10 grammes (150 grains), there supervenes a hepatic affective (infectious icterus, cirrhosis, cancer of the liver), we find that the sugar disappears from the urine, even though the patient returns to his ordinary diet. I can cite, in particular, two cases which have seemed to me very convincing; in the one the patient during the course of his diabetic affection had an attack of gastro-duodenitis followed by angiocholitis, then by infectious icterus. He was put on an exclusive milk diet, with vegetables containing a predominance of starch and sugar, and not a particle of glucose was found in his urine. But as soon as the obstacle was removed, *i. e.*, when the bile again flowed into the intestine and the icteroid phenomena disappeared, the same kind of diet led to a return of the glycosuria.

In another patient the event was very similar, as we saw the sugar disappear from the urine at the moment of the appearance of the hepatic affection, to reappear as soon as the latter had got well.

It seems to me that we can give a physiological explanation of such cases. In hepatic affections the glycogenic function of the liver diminishes and disappears, and thereby the original cause of the diabetes, as this is especially known to happen in the incurable affections, cancer and cirrhosis. I have seen cirrhosis supervene in diabetic patients, and the fact is sufficiently frequent, considering the often immoderate use which diabetic patients make of alcoholic stimulants, and simultaneously the sugar has disappeared from the urine. Therefore, I believe in the necessity of integrity of the liver in order that glycosuria may continue in the diabetic.

It may be objected that lesions of the liver have been found in diabetic patients; and in the numerous autopsies that have been made, mention has been made of finding hypertrophic cirrhosis and true cirrhosis.

As for hypertrophic cirrhosis accompanied with pigmentation of the liver, Hanot, Chauffard, Letulle, Brault, Galliard, have recited numerous examples. If we may trust their observations, this hypertrophic cirrhosis is, for the most part, supra-hepatic (perilobular, proceeding from the circumference to the center). But what it would be of interest to know is the influence of this affection resulting from repeated congestions of the liver on the progress of diabetes.

As for true cirrhosis, it has been very frequently observed in connection with diabetes, and quite recently Glenard, of Lyons, has shown that in many diabetic patients there are modifications in the form of the liver, which are to be referred to cirrhosis.

But this cirrhosis is easily explained by the abuse which diabetics make of alcohol. As I have often said, the diabetic, owing to the activity of the elimination of alcohol by the kidneys, an elimination which is favored by the polyuria, tolerates alcohol well and without becoming intoxicated; as, moreover, he finds in alcohol an element of force, there are few diabetics who do not yield to the propensity to indulge in intoxicating drinks.

But here, too, the cirrhosis is curative of the diabetes, at least in part, for the cirrhotic liver is no longer a glycogenic liver, the destruction of the hepatic cell by the sclerosis annihilating all the functions, glycogenic, antiseptic and biliary.

What leads me to maintain this opinion that in diabetic patients the functions of the liver are in the main normal and physiological, perhaps even exaggerated, is that I have never seen in the numerous cases of hepatic disease which I have examined, gly-

[1] Lépine, Pathogenie du diabète (*Lyon Medicale*, October 25, 1891.)

cosuria appear in the course of the hepatic affection, and never at any moment have I been able to observe even a temporary glycosuria; and I believe that the same fact is to-day acknowledged by all pathologists; in other words, affections of the liver do not cause glycosuria.

I now maintain this second proposition, to wit: that in the diabetic the inter-current affections of the liver tend to cause the sugar to disappear from the urine. The cases which I have observed are not so numerous as to warrant me in affirming that the fact which I have advanced constitutes a law, but I insist that henceforth your attention should be directed to this point, and you will see in the next lecture that I shall draw some important conclusions therefrom from the point of view of the treatment of diabetes.

The therapeutic considerations which flow from the considerations of pathological physiology, which I have just stated, will be the subject of my next lecture.

Society Notes.

NEW YORK ACADEMY OF MEDICINE.

SECTION ON PEDIATRICS.

Stated Meeting March 10, 1892.

W. P. NORTHRUP, M.D., chairman.

A CASE OF CYANOSIS

WAS presented by Dr. A. JACOBI, the patient being fifteen months old. A systolic murmur was heard over the front of the chest, and was conveyed along the abdominal aorta, but was not heard behind. Percussion detected marked cardiac enlargement toward the right. This indicated hypertrophy of the right ventricle, probably the result of obstruction in the pulmonary circulation. The probable diagnosis was partial stenosis of the pulmonary artery, with open ductus arteriosus. With complete contraction of the artery and open septum, the heart would not be as large.

TWO CASES OF IMPERFORATE ANUS

Were reported by DR. H. W. BERG, the rectal opening in each case being in the vagina. Operation was performed by making a long incision across the perineum, dissecting out the rectum, bringing it down to the natural position, and stitching it in place. Both operations were successful, the patients having normal rectums with sphincters, which they would not have had if an opening had simply been made through the tissues.

EMBOLISMAL APOPLEXY

In a boy of twelve years. The case was reported by DR. J. LEWIS SMITH. The boy had had rheumatism, but there was no cardiac murmur. The disease is rare at this age.

EMPYEMA IN CHILDHOOD—IS IT EVER PRIMARY?—ITS RELATIONS TO PNEUMONIA AND TO PLEURISY, WITH SEROUS EFFUSION.

DR. HENRY KOPLIK read a paper on this subject. The etiology of pleurisies, both serous and sero purulent, has been cleared up in many respects during the last decade, chiefly through bacterioscopic science. We know that children may develop an effusion in the chest, not as the result of constitutional causes alone, but causes to which we also trace the development of pneumonia.

The diagnosis of pleurisy as serous or purulent from simple inspection of the fluid without the microscope is highly unsatisfactory, and may lead to grave error in diagnosis and treatment. Children are prone to develop sudden effusions in the pleural cavity, and we are struck with the overwhelming frequency with which such effusion is purulent. It often happens that a clear serous looking effusion changes to a purulent one. This, however, is apparent rather than real. It was formerly thought that if fluid at the first exploratory puncture was clear and subsequently became purulent, some secondary infection had taken place. This we now know to be erroneous. All exudations apparently serous at first, which subsequently become purulent, do so from causes independent of external interference, but inherent in themselves. Such a serous exudation, if examined microscopically, will be found to contain not only leucocytes and blood cells, but pus-producing micro-organisms. In children acute exudations, without these micro-organisms, are the exception. Such fluid is but one step removed from actual pus. Moreover, the custom of refraining from informing ourselves as to the character of fluid in the chest by puncture for fear of contaminating that fluid is untenable.

Another point of importance is the question as to whether in children empyema may be primary; *i. e.*, whether it may occur without any connections with external infection or processes in the lung. While cases have been reported in which no other diseased condition was detected upon autopsy, they are extreme rareties, so much so that the writer in a large experience has never seen one.

Can the effusion be purulent from the outset? Undoubtedly it may be, and frequently is so. The connection between pleurisy and disease of the lung is thus seen to be very close. It often happens that the illness begins with high temperature and all the symptoms of pneumonia, but after a few days the condition changes, fluid is detected in the pleura, giving the impression that an error in diagnosis has been made. In such cases microscopical examination shows the same germ in the pus from the pleural cavity as is found in the lung, the pneumococcus of Fränkel. The tendency of this germ to cause suppuration is well-known, and it is found in other complications of pneumonia marked by pus, as meningitis. Its presence in empyema renders the close relationship of that disease to pneumonia very certain. They probably invade the pleura through the subpleural lymph spaces.

There are other exudations which still cause discussion in which we do not find the pneumococcus, but other germs of less marked selective tendencies, as the streptococcus and staphylococcus. There is reason to believe that these are also metapneumonic though the specific germ does not appear.

There are other cases complicating the secondary pneumonia and occurring without pneumonia in the infectious diseases. These effusions usually show the presence of the streptococcus.

THE DIAGNOSIS OF EMPYEMA,

was the subject of a paper by DR. S. W. BRANNAN. As symptoms are obscure the diagnosis must rest chiefly on physical signs. It is very easy when the classical signs are present—immobility of the effected side, loss of vocal fremitus, flatness on percussion, and diminished respiratory sounds. In young children, however, these signs are rarely distinct. There may be no distension of the side whatever, and vocal fremitus even if it can be obtained, is of no signifi-

cance. Signs obtained by ausculation are often difficult to interpret. The normal respiratory sounds are so loud and the pleural cavity so small that a considerable collection of fluid may cause but little change. Displacement of the apex beat is a sign of the greatest value. It is caused by no other condition. The two most constant signs are percussion, dullness and displaced apex beat. Exploratory puncture affords the most positive, and in many cases, the only certain evidence of fluid. As to the character of the fluid symptoms and signs are very uncertain guides. The needle is the only sure test. Pleurisy following pneumonia, or complicating the infectious diseases and traumatic pleurisy is apt to be purulent. Though the needle often fails to obtain fluid when present, its use when the fluid does not quickly disappear should never be omitted.

It has been alleged by Baccelli that whispered voice is always present when the effusion is purely serous, but absent when sero-purulent or purulent. This is explained on the ground that sound is more readily transmitted by a homogenous medium like serum. The certainty of this sign is quite doubtful.

OPERATION FOR EMPYEMA,

was considered by DR. J. H. RIPLEY in a brief paper. Operation should be performed as soon as a diagnosis has been made. Unless the amount of fluid is very great, or the symptoms are urgent, a delay of a few days will do no harm. The location of the incision must depend largely upon the local conditions. It may usually be made in the seventh intercostal space below the angle of the scapula. An incision an inch or more in length should be made down to the costal pleura, through which a small opening should be made. Through this a director should be passed and the incision enlarged with a blunt pointed bistoury. A drainage tube of large size should then be passed several inches into the cavity with a safety pin attached to the outer end, to prevent its slipping out of sight. If there is not sufficient space for the tube between the ribs, a portion should be removed subperiostially. The wound should be dressed with oakum, which should be changed every day.

EXPANSION OF THE LUNGS IN CASES TREATED BY INCISIONAL DRAINAGE,

was discussed by J. WEST ROOSEVELT. The idea that fluid in the chest causes compression of the lung has been completely disproved. The lung tends to retract from the chest wall whenever fluid or air are present in the pleural cavity. It becomes retracted and condensed, but is compressed only when the amount of fluid is very large. Compression can only occur when the elastic recoil of the lung has been destroyed. Expansion of the lung to fill its normal position almost invariably follows early operation performed at the lowest part of the cavity where drainage can be free. The earlier the operation, when pus is known to be present, the better. The prognosis is far better with the chest full of air than with the chest full of pus.

Expansion is aided by the action of the other lung, especially when the glottis is closed as in coughing. The air is forced by the sound lung into the contracted lung during expiration, and expansion will be seen at that time rather than during inspiration. Granulation tissue by contracting also aids in drawing the lung out to the chest wall.

Removal of sufficient rib to permit drainage is perfectly proper. Removal of rib for the purpose of causing contraction of the chest wall is almost criminal. It should not contract and can only do so by interfering with the lung and obliterating space that the lung requires, and if properly managed, would undoubtedly occupy.

DR. SCHARLAU reported a case in which the chest was found full of pus on the third day after a sudden onset.

DR. CAILLÈ had seen a case of double primary empyema as proved by autopsy. The lung was perfectly healthy and there was no lesion of the tonsils or other organs. Primary empyema is, however, extremely rare in children.

DR. HOPLIK said that while primary empyema was a possibility, it was very rare.

DR. HOLT had never seen a case of primary empyema nor one in which pure serum without pus cells had been transformed into pus. Pleurisy, accompanying pneumonia, is usually distinctly purulent.

DR. PUTNAM JACOBI had seen a case of primary empyema. The theory of the lung compression was antequated and untenable.

DR. EWART, of London, believed that while primary pleurisy might occur, it was very rare.

DR. RIPLEY said that in a child, dullness was not always present, and but little fluid was required to produce bronchial breathing. Displacement of the apex was a valuable sign, but it was very difficult in some cases to detect the apex beat.

DR. ANDREW H. SMITH had often found a line of egophany just above the fluid and regarded it as a valuable sign. He said that the lung in empyema was contracted, not compressed. He had many years ago proved the transferrence of impulse from the sound to the affected lung when the glottis was closed.

DR. HOLT referred to the absence of râles and friction sounds where they had previously been heard as a very valuable sign of fluid.

DR. EWART also referred to silence where there had before been crepitations as an important sign. He did not believe that Bacelli's sign was to be relied upon. Symptoms were sometimes of considerable importance. A high or oscillating temperature associated with a persistent dry cough for a long time, was a suspicious symptom.

The Chairman asked if it had been the experience of those present that aspiration was advantagious.

DR. ROOSEVELT replied that asperation with the idea of expanding the lung by the suction was foolish. At the best, it is a waste of time.

DR. DAWBARN reported a case in which irrigation of the cavity with a warm 1 per cent. solution of carbolic acid had been followed by death from shock in four hours.

DR. CAILLÈ objected to irrigation on the ground that it breaks up the adhesions which we wish to avoid.

DR. BERG advocated exsection of a rib to aid drainage.

DR. WINTERS believed that most undiagnosticated cases died from exhausted or tuberculosis, but encysted cases often recovered. He had never seen a case of pure serum changed to pus. Serous effusions were not uncommon in connection with the infectious diseases. He had frequently seen cases of empyema in which a diagnosis of pneumonia had been made at the outset. He had formerly thought that an error in diagnosis had been made, but now believes that that was the usual way in which empyema developed.

CLINICAL SOCIETY OF MARYLAND.

THE two hundred and sixty-third regular meeting was called to order by the President, DR. ROBT. W. JOHNSON, November 4, 1892.

DR. HERBERT HARLAN spoke of a

CASE OF BUPHTHALMOS

which had recently come under his care. Buphthalmos is simply a very large eye. It is very rare; in over 56,000 cases at the Presbyterian Eye and Ear Hospital not one case of buphthalmos has been recorded. There are some cases put down as bulging of cornea, and probably one or two of them were cases of congenital buphthalmos. Dr. Harlan's case is a girl of eleven years; both eyes affected, but one larger than the other; the condition was noticed at birth; eyes gradually grew worse. Sight was never good; in one eye the cornea became completely opaque, and there was a good deal of inflammation and pain for six months, and then all light perception was lost. The other eye has likewise been somewhat painful. It is enormously enlarged, almost as big as the eye of an ox. Cornea of usual thickness; tension about normal; iris a little thin, and apparently a little stretched about outer margin. Eye exceedingly myopic; it looked like any other eye, except its enormous size. Quite a number of cases of enlarged eyes are reported, but they are not perfeet like this one.

DR. HARLAN saw another similar case recently in a negro man, but the eye was defective; it was 1½–1¾ inches in diameter. The eye was removed. Vitreous and lens opaque, cornea cloudy, and ciliary region inflamed.

DR. ROBT. RANDOLPH: I found, about a year ago, in a bottle at the Eye and Ear Hospital, a buphthalmic eye; it was evidently taken from a child six or eight years of age. There was a marked cylinder-shaped excavation of the optic nerve, very much as we see in glaucoma. The eye was thin; it was full of holes, showing that it was much atrophied. The ciliary body was atrophied; cornea cloudy.

I think Nettleship reports a case in which iridectomy has done good. I understand that there is a case in France where the vitreous is systematically drained.

DR. CHAMBERS: Was the rest of the face symmetrical in Dr. Harlan's case?

DR. HARLAN: She is a very pretty little girl.

DR. RANDOLPH: Is it not generally one-sided?

DR. HARLAN: It was double in both cases of mine, but one eye larger than the other.

In these two cases I looked at the optic nerve, and there was no depression. I think it likely that the one Dr. Randolph found was one of secondary glaucoma.

DR. RANDOLPH: It was one of hydro-ophthalmos in a child.

DR. J. L. INGLE reported a

CASE OF OSTEOMYELITIS

in which these symptoms during life were so misleading that the real nature of the disease was only discovered at the autopsy. A healthy boy of fourteen was, for several days, less vivacious than usual, then, on November 20, 1891, was taken seriously sick. Previous to the 20th, there had been a festered spot on left ankle, which had apparently healed. On 20th, fever 104°; severe pain in left leg from knee to toes; fever high till 22d, when it fell to normal. On this day had some epistaxis, and on following day tympanitis marked. Acute rheumatism was diagnosed, and salicylate of soda given. Mind wandered from the first. Constant headache from beginning to end, with persistent insomnia. On the 23d, Dr. Earle suspected typhoid fever from delirium and epistaxis. Dr. Ingle was inclined to regard it as a case of cerebral meningitis. The child lay with both eyes closed, was irritable when aroused, avoided light, was constipated, surface pallid, erythematous blushing, dilated pupils. Instead of a retracted abdomen, there was an enormously distended one. At this time there was marked soreness all over the body. Patient put upon iodide and bromide of soda, but no benefit derived. Tympanitis increased and interfered with respiration and circulation. The child died, and an autopsy was made by Dr. Chambers.

DR. J. W. CHAMBERS: The meninges of brain were markedly congested, and there was just such a condition as one would expect as the result of sepsis. There had been seemingly no definite cause for sepsis. The sore on the leg had scabbed over and was dry. Looking over the extremity it was observed that his left leg over the tibia was enlarged and œdematous, and this caused us to cut down. The periosteum was œdematous and red, and easily detached. When ripped away quite a large amount of bloody pus oozed from the center of the tibia. No other bones were allowed to be examined, although, from the fact that he had pain in the other leg and elsewhere in the body, we suspected that it was a case of multiple osteomyelitis involving several bones.

As an idiopathic disease osteomyelitis has not received much attention until within the past few years. The cause of the disease is probably simply the pus microbe getting into this particular locality. It is probably always secondary to some pus formation elsewhere in the body. Some think it is absorbed from the alimentary tract, the bronchial mucous membrane or other sources, and then finds its way into the bones—mostly young bones near the epiphyses. The disease is often difficult to diagnose. Holmes has said that a large number of these cases are diagnosed on the autopsy table. We have few definite symptoms to guide us. I do not think any doctor should feel very much chagrined if he should fail to diagnose osteomyelitis in such a case as the present one. It is probably that many cases die under our care that we have diagnosed as something else. I have seen but three cases; two I recognized at once, the third only after the death of the child. The only distinctive symptom was intense pain at one point. By pressing over the bone, if the individual is not thoroughly affected by the septic condition, you can find tenderness. The prognosis is bad. Multiple cases are very little modified by medical or surgical treatment. Were only one bone involved, if we should recognize it, or suspect it, I should not hesitate to trephine. We can in this way save a number of lives, or a good deal of destruction of tissue. I would not have any more hesitation in boring into a pus cavity in bone than in opening an abscess in the soft tissue. In multiple cases the sepsis is so great that there is scarcely anything to be done either by surgeon or physician. Under these circumstances I would not hesitate to give relief to tension.

DR. W. S. THAYER: I saw some three years ago, at the Massachusetts General Hospital, a case very similar to the one reported, except that the bone was the femur. A boy of fourteen was admitted to the medical side with a diagnosis of sciatica. He had been treated by a reputable physician for ten days with this diagnosis. For a week before entrance had

had occasional chilly sensations, but no actual chill. He was in a typhoid condition, dry brown tongue and high fever. I found, upon examination, that the upper part of the thigh on one side was distinctly larger than that on the other side, somewhat tense to feel, and rather hot. He was immediately transferred to the surgical side, an opening was made, and a large quantity of pus was found. The boy was in a state of septicæmia, from which he did not recover.

DR. S. T. EARLE reviewed the literature of osteomyelitis with especial reference to causation.

DR. J. M. T. FINNEY: This disease, in a certain number of cases, is difficult to diagnose; in certain other cases it is not. I happen to have seen two or three of the latter class. As far as the pathology is concerned, I think it is simply a bone abscess. The treatment is like the treatment of a like condition in other tissues, viz.: Where there is pus evacuate it.

The resemblance of this disease to appendicitis is very marked. It gets well in many cases and will return again. As we are coming more and more to operate in appendicitis, so we ought more and more to operate in myelitis.

There is one point in diagnosis which Dr. Chambers has not referred to, and which seems to me a most important one, viz.: local œdema.

Local œdema seems to me to be the most characteristic sign of pus deeply seated. Dr. Finney related three cases operated upon by himself, all making good recovery. The staphylococcus pyogenes aurens was found present in all these cases.

DR. CHAMBERS: As to œdema, a great many cases may die from sepsis before œdema is present. If you get pain and œdema, then the diagnosis is more sure.

DR. S. T. EARLE: I saw the case reported in the early stage. There was no point of localized tenderness. He was tender from the knee down, with no point worse than another. In about two days after the onset there was just as much tenderness over the right limb as over the left, and this hyperæsthetic condition soon became general. As to œdema, the limb was only a trifle larger in the whole extent from the knee down.

DR. J. M. T. FINNEY then read an exhaustive paper on

APPENDICITIS.

DR. W. S. THAYER: A number of men in Munich have collected 1,coo cases of appendicitis in the Munich hospitals. A German doctor has analyzed these cases and arrives at the conclusion that appendicitis is fully as common in females as in males, if, indeed, it is not more common. As to age, he finds the proportion almost exactly the same in old age as in youth.

Operation must be governed by surroundings. In a large city where we have good surgical skill, I believe that where the symptoms progress twenty-four hours the case should be handed over to the surgeon. I believe the majority of these cases belong to the surgeon.

DR. J. D. BLAKE: There is no doubt but that under proper conditions an early operation is advisable. To induce the patient's family to permit the operation to be done at his home or at a hospital is often impossible.

I was rather struck with Dr. Finney's idea of combining all these conditions—typhlitis, perityphlitis and appendicitis—under the same head, because it is a difficult thing to know just which you have.

I remember that Dr. Chew once said that at a meeting of the American Medical Association, the physicians were discussing appendicitis on the medical side, and concluded that at a very early day such cases should be handed over to the surgeon for operation. At the same time the surgical section were discussing the same thing, and concluded that an operation should not be performed too early, that it was better to wait.

I have seen two cases where an early operation showed that the trouble was located in the appendix, which was removed. In two other cases that I have seen there was so much adhesion that it was difficult to determine where the trouble began.

I remember one case, in a young man, where the aspirator was used to determine the presence of pus. Three and one-half ounces of pus, with distinct odor, was drawn. It was thought better not to withdraw it all, as the walls of the abscess might collapse, and there would be a tear into the abdominal cavity. The patient has since had no further trouble. Eight months ago I was called to a young man with appendicitis. I advised operation, which was declined. Five days later I aspirated him and drew away nearly four ounces of pus. The next day I drew away a little over two ounces of pus. On the tenth day I removed about an ounce of very thick tenaceous pus. This patient has never had any trouble since. I had a similar case six months ago, in which I aspirated twice. He has since complained of pain about that region and I have recommended an operation. Certainly, where the diagnosis is not plain, an aspirator rarely jeopardizes the case, and very often throws some light upon the trouble. In another case in which I used an aspirator I got about three ounces of blood, and the symptoms all disappeared.

DR. J. F. MARTENET: I am distinctly a medical man, but I have been converted through personal experience to the belief that appendicitis is distinctly a surgical trouble. The cases which I have attended have come on abruptly with acute pain. I have had four cases in my practice within twelve months. Two of the cases Dr. Chambers saw with me. An operation was advised, but in neither of the cases would the family consent. My habit at present, in every case I meet with, is to state that it is a distinctly surgical trouble and refer it to the surgeon. One of my cases who refused operation secured relief by suppuration through the bowel. This was a year ago. In July last she passed through another attack safely. Lately she was operated upon by Prof. Kelly, and is now well.

DR. J. W. CHAMBERS: The statistics from the medical side seem to be faulty. A person may have three or four attacks and they are reported as four cases cured. A surgeon operates on a case and reports one case cured.

As to women having it as frequently as men, I have under my own observation known of three women upon whom the gynecologists had diagnosed pelvic cellulitis and salpingitis, and removed the "tube" which proved to be the appendix. In a large number of cases the appendix is really a pelvic organ, and if inflamed it will certainly be a case of salpingitis with some gynecologists. Such errors may have something to do with statistics. There is no reason in the world why women should escape more than men; certainly they are just as liable to catarrhal affections.

Referring to aspiration, I think Dr. Blake's patients are relieved rather than cured. I should hesitate to use the needle. If I should find pus with the aspirator I should never feel that I had done my duty unless I had cut down and removed all the pus. It

would not be good treatment to aspirate an abscess of the thigh, and it is also not good treatment for an abscess in the iliac region.

DR. INGLE: I believe the sooner we place these cases in the hands of the surgeon the better. When the family would not consent to an operation, I have treated these cases with salines and enemata without any relief whatever.

DR. THAYER: In the Munich statistics it was said that undoubtedly cases of appendicitis had been called salpingitis and pelvic cellulitis, and many cases in the female were, doubtless, missed in this way.

DR. MARTENET: Two of my cases occurred in females, one of five years; the other of ten years of age.

DR. BLAKE: There are certain cases where I can find no distinct indication of what my patient has, whether it is typhlitis, perityphlitis or appendicitis, and when I have waited long enough I put in an aspirator to find out if there is pus, and in no case have I seen bad symptoms follow, and in some there was distinct benefit. I think we are thoroughly justified in using an aspirator to make a diagnosis.

DR. FINNEY: As these are pus cases the operation can be done as well at the patient's home as in an hospital.

As to aspiration: I agree entirely with Dr. Chambers. Where there are sufficient indications for aspiration there are still more indications for the use of the knife. DR. W. F. WATSON, *Secretary.*

1603 N. BROADWAY, BALTIMORE, MD.

TREATMENT OF DIPHTHERIA. — The following treatment of diphtheria in children is much advocated at present. The room is steamed with a solution as follows:

℞.—Phenic acid	℥ij.
Salicylic acid	ʒiv.
Benzoic acid	℥jss.
Alcohol	℥iv.

A tablespoonful is put into a quart of boiling water and renewed every three hours.

As a local application:

℞.—Camphor	ʒv.
Castor oil	ʒiv.
Alcohol	ʒiij.
Phenic acid	ʒj.
Tartaric acid	℈j

—M. Ferand, Paris, *Med. Press and Circular.*

NEW PRESCRIPTION FOR DYSENTERY:

℞.—Salol	ʒj.
Syr. tolu	ʒij.
Extr. opii	gr. ij.
Cognac	ʒj.
Mist. acaciæ	℥vij.

One tablespoonful every hour.

—*Med. Press.*

LARYNGEAL CHOREA.—That the laryngeal muscles are liable, in common with all the muscles of the body, to suffer in chorea, and to exhibit the movements characteristic of that disease is well known. Ziemssen and other authors have described such movements of the laryngeal and respiratory muscles, with resulting irregularities in speech and respiration and the production of unexpected "grunting" noises in the throat. During the past four years there have come under my observation three cases of chorea commencing in the pharyngeal and laryngeal muscles, and limited for some considerable time to these muscles, the only symptom being a cough. As these cases, in the first place, presented very considerable diffiulty in diagnosis, and, in the second place, are of a class to which I have been able to find only one distinct reference in the more accessible literature of chorea, and as, finally, they came under my notice accidentally, I feel constrained to give them publicity in order that the value of the observations made and the conclusions drawn therefrom, may be tested by those who, from the nature of their practice, have more ample means of observation of choric patients and of laryngeal disorders. That such cases are fairly common seems probable, unless one is to conclude that my experience has been altogether exceptional. That the true diagnosis of the laryngeal affection, as evidenced by the cough, is frequently missed seems still more probable, seeing that a laryngoscopic examination is necessary to establish it, such an examination being by no means of easy accomplishment in children, the usual victims of chorea.

—J. H. Nicoll, M. B., *Lancet.*

RUPTURED HEART.—As rupture of the heart is a lesion of somewhat rare occurrence, the following case may be of some interest:

J. W., aged thirty-one, carman, was brought to me, a few days ago, having been found lying on his face at his horses' feet, quite unconscious. He had been seen, a minute or two previously, standing at the heads of the horses, ready to back his van into a shed. The men who brought him said they thought the pole of the van must have struck him on the chest, but, of course, this was mere supposition, as nobody had seen him fall. On admission, half an hour after being picked up, I found him quite unconscious; voluntary motion being absent. He was extremely blanched; pupils widely dilated, and showed no reaction to light; pulse hardly perceptible; perspiration profuse. In this condition he remained for nearly an hour, when he began to show signs of slight consciousness. I asked him if he had any pain; he understood me, and put his hand to his chest. About a quarter of an hour later he vomited a little blood, and expired shortly afterwards. He lived two hours from the time he was picked up.

Necropsy.—Externally there was a slight abrasion over the center of the sternum; with this exception there were no other injuries on the body. On opening the chest the pericardium was distended, and on opening it I found it contained a quantity of uncoagulated blood. This I carefully removed, and then I could see that blood was oozing from the right auricle. On further examination I found that there was a laceration situated just between the auricular appendix and the commencement of the superior vena cava, measuring in length about a quarter of an inch and an eighth in breadth. The heart was slightly undersized and its muscular tissue was pale, while on the surface there was an undue amount of fatty deposit. This case, I have no doubt, was traumatic, although there is very little to prove it. With the exception of the abrasion over the sternum, there were no other signs of injury. I am inclined to think that the condition of the heart predisposed to the lesion, as the accident which caused it could not have been severe, otherwise there would have been more contusion and injury to external structures.

—B. W. Mudd, M.B.C.M., *Lancet.*

The Times and Register

A Weekly Journal of Medicine and Surgery.

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THE NEW YORK PASTEUR INSTITUTE.

THE second annual report of the New York Pasteur Institute has been issued. During the year 574 persons applied for treatment. Of these, 461 had been bitten by animals that were shown to be not rabid. These person were treated simply for their wounds and sent home. In 113 cases the anti-rabic treatment was applied; there being evidence, clinically or by inoculation at the laboratory, that the animals inflicting the wounds were really rabid. It seems reasonable that there should be a third class, in which the state of the animals could not be ascertained; and it would be interesting to know in which category M. Gibier places these, as no mention is made of them in his report. If a person be bitten by an animal that disappears thereupon, and cannot be traced, it is impossible to demonstrate the rabid or non-rabid state of the animal. It may be that no instance of this sort occurred during the year, but this seems unlikely; and the absence of this class occasions some uncertainty as to the value of the record. In the preceding table, however, summarizing the work of the Institute during the two years of its existence, the distinction is made, and it is evident that these cases are treated by the anti-rabic injections, and counted in the totals.

	A			B			C		
Bites inflicted on the head and face ..... simple..	....	4	8	....	3	3	....	11	19
Bites inflicted on the head and face ..... multiple	....	4		....			....	8	
Cauterization efficacious	....	....		....	....		....	....	
Cauterization non efficacious	3	....		....	....		3	....	
No cauterization.....	5	....		3	....		16	....	
Bites inflicted on the hands..... simple..	....	35	54	....	41	58	....	40	66
Bites inflicted on the hands..... multiple	....	19		....	17		....	26	
Cauterization efficacious	1	....		....	....		....	....	
Cauterization non efficacious	22	....		19	....		22	....	
No cauterization.....	31	....		39	....		44	....	
Bites inflicted on the limbs and body..... simple..	....	9	14	....	18	25	....	24	28
Bites inflicted on the limbs and body..... multiple	....	5		....	7		....	4	
Cauterization efficacious	....	....		....	....		1	....	
Cauterization non efficacious	6	....		9	....		6	....	
No cauterization.....	8	....		16	....		21	....	
Clothes torn.....	4	....		9	....		1	....	
Bites inflicted on bare parts...	1	....		8	....		2	....	
Bites inflicted on different parts of the body.....	....	....	6	....	....	9	....	....	8
Cauterization efficacious	....	....		....	....		1	....	
Cauterization non efficacious	1	....		4	....		2	....	
No cauterization.....	5	....		5	....		5	....	
Clothes torn.....	1	....		1	....		3	....	
Bites inflicted on bare parts...	3	....		3	....		1	....	
Totals.....	....	....	82	....	....	95	....	....	121
	A			B			C		
General totals.....	298								

The column A refers to persons bitten by animals in which hydrophobia has been evidenced by experimentation or by the death of some other persons or animals bitten by them; column B to persons who have been wounded by dogs having been recognized mad by the clinical or veterinary examination; and column C to cases in which hydrophobia could only be suspected, as the animals had disappeared or were killed instantly and their bodies thrown away.

In addition to the 298 inoculated after they had been bitten, we are informed that eleven persons have been submitted to the prophylactic treatment in order to obviate accidental inoculation during the accomplishment of their duty. These eleven persons were the servants, the assistants and the Director of the Institute.

Three deaths by hydrophobia are acknowledged to have occurred after treatment:

"Miriam Adams, five years old, of South Farmingham, Mass. Badly bitten July 14, 1891, in nineteen places by a dog recognized to be mad. Treated from July 15 to August 1. Symptoms of hydrophobia appeared six days later (August 6). Died August 9, 1891.

"Three other persons (two sisters of the patient and a man), bitten by the same dog, who received the same course of treatment, are now enjoying good health.

"R. D. Morton, thirty-five years old, of Columbia, S. C., engineer. Two days before commencing his treatment (August 5, 1891,) he had been severely bitten by a rabid dog on the right hand and wrist, and was treated from the 5th to the 22d of August, 1891. Died of hydrophobia two months and two days after (October 24).

"J. S. T. Earl, forty-two years old, of Turners, N. Y., farmer. On September 20 he was severely bitten by a wandering dog on the right forearm, on which were twelve deep cuts and five abrasions of the integument. Seven small pigs and their sow, bitten by the same dog, died of hydrophobia between the 5th and 10th of October. Earl applied for treatment only four days after the accident, and was treated from September 24 to October 10. He died of hydrophobia on the 1st of January, 1892. He complained chiefly at first of his right arm 'hurting by spells.'"

Besides these, the following persons died of some intercurrent disease during or after the anti-rabic treatment:

"H. W. Stevens, thirty-three years old, physician, of Brooklyn. He came on January 26, 1891, to the institute, together with Jno. Carroll, janitor at New York Hospital. Both of them had cuts or sores on the fingers, and were afraid that they had inoculated themselves with the virus of hydrophobia in the post-mortem of a man who died of this disease, the 22d of

January. When Dr. Stevens commenced his treatment, which was of an ordinary intensity, he was already ill; three weeks previously he had cut himself on the left forefinger while making an autopsy. This wound was followed by a lymphangitis of the hand and arm and suppuration. Before this was healed up he made many necropsies. He inquired at first whether sulphate of quinine would interfere with the treatment, *as he had chills*. He grew weaker every day and kept on at his duty, though he was advised to take a rest. Two days before the end of the treatment he felt very feeble, and the last day he was still worse. A polymyelitis developed and he died on February 23.

"Frank McCoy, thirty-one years old, of Port Jervis, N. Y., barber. On March 7, 1891, he was bitten on the lower lip by his own dog, which was recognized to be affected with hydrophobia. The wound was large and bled considerably; it was cauterized about twenty minutes afterwards with nitrate of silver (inefficacious). McCoy applied for treatment only five days later (March 12th). His treatment was not half completed when he went to Liberty Island on a cold and rainy day. On returning home he went to bed with chills and fever, the effect of a penetrating cold so contracted. He was attended by Dr. R. W. Buchanan, of New York, who shortly after cupped his left side; the patient was then suffering from pneumonia of an infectious form. On the 3d of April he seemed somewhat better, and his relatives took him to Port Jervis, where he died on April 8, 1891.

"Jonathan Knowles, sixty-three years old, of Taylorsville, Pa., farmer, came for treatment on December 12, 1891. Was affected with bronchitis and kidney trouble. He was obliged to keep in bed a few days after, as he had contracted the 'grippe' complicated with pulmonary œdema. He died on December 24."

The report further states that during the year 1891, there were 42 deaths formally reported as caused by rabies (presumably in the United States, but not so stated in the report), who were not submitted to the Pasteurian treatment. Claiming that the treatment has produced its full effects only fifteen days after its completion, the percentage of failure is given by M. Gibier as 0.66, or 2 out of 298. But as only 177 of the 298 were bitten by animals proved to be rabid, the calculation should be based on these. Allowing for the sake of argument that the 3 deaths from intercurrent disease were due really to hydrophobia, we have 6 deaths out of 177, or 3⅓ per cent., as the total mortality of cases submitted to treatment. Compare this with the mortality under the previous methods of treatment: Bollinger, in Ziemssen's Cyclopædia, Vol. III, page 502, states that of persons bitten by rabid animals, if the wounds are cauterized, 33 per cent. die; if the wounds are not cauterized, 83 per cent. die.

Unless we are prepared to charge wholesale misrepresentation upon M. Gibier and phenomenal ignorance upon those who made the diagnosis of rabies in these cases, we must admit that this report presents a very strong case for Pasteur's method.

GOITRE, or bronchocele, is quite a common affection among young colts raised for racing purposes, but is never seen among draught horses. This speaks badly for the higher education of horses.

Annotations.

"TINNITUS AURIUM."

SUBJECTIVE impressions of sound, or noises heard from within the head, are produced in just the same way as *objective* impressions from without. Hearing is excited, in both cases, by vibrations communicated to the labyrinth, and thence telegraphed by the auditory nerve to the sensorium, and the more forcible the vibrations the louder the sound. Vibrations may likewise be carried directly to the brain, through the petrous part of the os temporalis, which is in touch with the adjacent cranial bones; but these sounds are vague and indefinite, being conveyed independently of the apparatus specially devoted to audition. Impressions from without are, of course, of infinite variety, while those arising from within are about limited to sounds of "buzzing," "humming," "jingling," "rushing," and "roaring;" all comprised under the name of "tinnitus aurium." These sounds may be simply due to impacted wax in the external passage, or to decayed teeth. But they may occur in many diseases of the organ of hearing, as gout and rheumatism of the ear, inflammation of the auditory nerve, or of the semi-circular canals (Meniére's disease), catarrhal congestion of the eustachian tube, etc.; in some, brain affections, as cerebral hyperæmia, congestion, inflammation, and aneurism; in hysteria, nervous exhaustion, migraine, valvular disease and functional disturbance of the heart; in some, exanthematous fevers; occasionally as a warning of epileptic seizures and "change of life," and as a sequel of grippe. The internal administration of certain drugs will also give rise to tinnitus, as quinine, salicine, antipyrine, and their compounds, large doses of iron, and some narcotics. Many persons can readily evoke peculiar sounds by contracting the tensor tympani muscle, and drawing the membrana tympani inwards, during the acts of swallowing, yawning, "blowing the nose," etc.; these, however, are not truly subjective impressions, and they certainly do not come from without. They are produced from within by mechanical means. True subjective sounds may also be excited by electricity.

LOUIS LEWIS, M.D.

Letters to the Editor.

WHAT THE PROFESSION THINKS OF OUR "SPECIAL NUMBERS."

I THINK your course in seeking the consensus of practical therapeutists is much more likely to benefit the profession than would be the case if your pages were merely filled with cranky notions. The bringing together of the practical views and experiences of numerous doctors must afford some traces of practical truth, which your numerous readers can strain out through their mental filter to good purpose. At least it tends to take the conceit out of us to see the little we know set down beside the great of others. On the whole, however, this is salutary, as it tends to provoke to good works, and so to a live profession.

E. CHENERY.

BOSTON, MARCH 23, 1892.

YOUR article on "Pruritis," in March 5, TIMES AND REGISTER, was, to me, highly interesting, as I have in the last twenty years met with many cases, most of which I have treated with fair success.

Let me suggest that you give us an article on acne, as it is something that is full as difficult and inveterate to treat as pruritus.

Also, that a full account of the case of Prof. Roberts Bartholow be given, as I think it would be of general interest.

Your plan of special numbers is grand; nothing like it for general interest, and up to or even ahead of the times; make them as seasonable as possible; give us the pneumonia number now, not in July; also invite some eclectic physician of note to contribute an article in each of the special numbers. (I see you quote the *Eclectic Medical Journal*, on page 253). I am not an eclectic, but they use some indigenous remedies, and some remedies in (as they say) a specific way, that we should not disdain to notice.

I want to know why phenacetine, antipyrin, antikamnia, etc., etc., costing $1.00 per ounce, are (if they are) better than acetanilid, costing 75 cents to $1.00 per pound.

AS I believe the success of a journal lies in the co-operation of its readers, and as a large majority of the latter could furnish valuable data for an article, I venture to suggest if you would collect the facts and reconstruct in your inimitable style, giving each credit, your circle of correspondents would be largely increased among a class of physicians who are careful and practical, yet not possessed with the gift of writing a readable article.

The purport of your letter, if I mistake not, was to ascertain my individual idea of making the journal more popular. Your special numbers are doing much in this direction. G. D. MURRAY.

STATE HOSPITAL, HAZLETON, PA.

INFLUENCE OF PREGNANCY UPON PHTHISIS.

PLEASE give me your opinion of the effect of pregnancy and the puerperal state, including lactation, on tuberculous diseases of the lungs. I have been looking into the subject some recently, but find a dearth of literature on the subject.

WM. A. MCCOY.

MADISON, IND., MARCH 24, 1892.

[There is a sentimental notion extant that pregnancy delays the progress of tubercular consumption. My own observations are directly to the contrary. During pregnancy the malady progresses with increased rapidity, and a woman who might be expected to live for a year or more barely succeeds in bringing her infant into the world, when she succumbs. Lactation also, as constituting a drain upon the mother's vital forces, favors the progress of the disease. I have not looked up the authorities on this subject, but in twenty-one years' practice I cannot now recall an exception to the above rule, while many instances where it held good stand out clearly in my memory.

W. F. W.]

MEDICAL LAW OF WASHINGTON.

THE Legislature of this State has empowered the Governor to appoint a board of nine physicians and surgeons, whose duty it is to examine all persons wishing to practice medicine in this State in all the principal branches of medicine and surgery, and grant to such as shall pass a satisfactory examination a license to practice in the State.

The board, as now constituted, consists of five regulars, three Homœopaths and one Eclectic, I believe, although I am not quite sure of the exact creed of all the members.

There are two regular examinations each year, and occasionally an extra. I believe the next examination will be held in July. The board has been organized only about two years and have not published any proceedings yet, so I cannot give you the particulars. There is a heavy fine for practicing illegally. Dr. H. D. Keylor, Walla Walla, Washington, is Secretary, and will, no doubt, give any one full particulars. THOS. W. MUSGROVE, M.D.

PUYALLUP, WASHINGTON.

SOMNAMBULISM OR EPILEPSY?

MR. B., temperate, good, intelligent and with no hereditary bodily or mental disease; a man about forty years old; has the great misfortune of having been a somnambulist from early childhood. For the last year he has become alarmingly dangerous to his family while asleep. He has recently made repeated attacks on his family, with intent of murder, and no persuasion or shock will awaken him for a considerable time. He will talk and reason in his sleep, apparently rationally, and when he is awakened he remembers nothing of his doings while asleep. About a year ago he began by trying to choke his wife to death, believing her to be a wolf or robber. The attacks are now very frequent; about every second night. He gradually grows harder to arouse, and harder to control. It is very alarming to his family and friends, and very sad to see a good, quiet man while awake, turned to a raving maniac when asleep.

I have had him take regular baths (cold) at bedtime; depleted the bowels regularly; ordered light suppers; told him to sleep on the right side on a hard bed; with a cheerful every-day life. But none of this will do. What must I do? I beg of you, a brother of the fraternity of medicine, to help me and give relief to a distressed family. C.

[Is not this a case of nocturnal epilepsy? We would suggest a course of bromide of potassium and belladonna. Let the man sleep alone, in a well-guarded room, where he can not hurt himself or others.—ED. T. AND R.]

A CURIOUS CASE OF DIPHTHERIA.

DIPHTHERIA is a disease that often presents features and symptoms that seem very unlike others that have been described. My reason for presenting these cases is to show one that in its course was so different, and I may say so much more severe than any case I have been able to see myself or see reported. I have in my case-book three cases all occurring in the same family and at the same time. These cases, and I will group them, were in three children, one girl and two boys, named John, James and Laura, aged eight, six and four years respectively. All three took sick about the same time, and the parents, living out in the country about six miles, treated by home remedies for what they thought was "sore throat." Under their treatment they did not improve, and they called me in. After a careful examination I pronounced the cases diphtheria. In the case of John it was quite severe. The false membrane extending over about the whole fauces. In the other two it was of a much milder type. I placed them all on solution of hydrogen peroxide (Marchand's), with an equal part of water, and ordered the throat sprayed every hour, and gave them internally

sodii chlorat., and tr. ferri chlor. every four hours. On my next visit they had all improved but James. His case was rather worse. The membrane had extended toward the larynx, and I ordered the spray continued, and a mild counter-irritation externally.

Next day it had extended not only to larynx but to the nasal cavity. I had the nose douched out with the peroxide of hydrogen one-half strength. On my next visit the membrane was disappearing. The hoarseness was better. The breathing through nostrils easier, and he seemed much improved. The other two cases were doing nicely and were convalescing, and I felt rather elated on the success of the treatment.

I saw the patients next day, and in James' case his throat was clear of membrane, but extensive sloughing was taking place, and his mouth was a black mass, the tonsils and soft palate about sloughed away, and even the mucous membrane of the mouth seemed to partake of the sloughing process. The odor from the child was so offensive that one could hardly remain in the same room. He began to vomit blood. His stomach retained fairly well his medicine and nourishment, and his bowels were doing very nicely. Temperature at no time was above 101°. Pulse ran about 90. Next day after I had directed the mouth washed with a diluted peroxide of hydrogen it grew worse, and the arteries could be seen pulsating on either side of pharynx. His pulse had gone up to 108 per minute. I ordered milk punch every three hours; but when I called next day found he had vomited nearly everything. I had to stop the iron and chlorate mixture, and next day the stomach was better, but he could swallow only with greatest difficulty. Everything came out of his nose when he attempted swallowing.

When I saw him in the evening I noticed what seemed to be drops of blood all over his face. The mother informed me that all afternoon he had been, as she expressed it, "sweating blood." In fact, it seemed to be true. His whole body was covered with blood. Where it was washed off it would soon reappear. His pulse was now 120 per minute. I gave him tr. digitalis ♏iij every two hours, with ext. ergotæ fl. ♏xv. Instead of improving it grew worse. Next morning there was a bloody discharge from the bowels as well as from the kidneys. In fact, it seemed like pure blood in the vessel where he had passed his urine. His condition was critical; pulse 140 per minute; temperature 97°. I increased the ergot to ♏xxiv every two hours, with the digitalis ♏v.

This continued for twelve hours longer, when the boy died from excessive hemorrhage from bowels and kidneys. Where he laid in bed there was an immense pool of blood passed involuntarily when he died. The hemorrhage was so general blood poured out from every avenue, the skin, lungs, nose, bowels, kidneys and stomach.

There was no albumen in urine present during the whole course of disease, and until the hemorrhage appeared there was apparently no trouble with kidneys or bowels. He was conscious until he died.

His family history was very good. Parents healthy and no history of a hemorrhagic diathesis, and absolutely nothing to give any clue to the cause of the hemorrhages.

All three of these cases were treated alike, nursed alike and had the same surroundings. Two recovered without any sequelæ, and were around nicely, and this case, while beginning very mildly, soon became very severe. I have looked through all the works at my command, and have been unable to account for the hemorrhage and its subsequent course.

O. H. ROSSER, M.D.

RENOVO, PA.

Book Notices.

UNDER THE SOUTHERN CROSS: A West India Guide for Health and Pleasure. By WM. F. HUTCHINSON, M. D. Freely illustrated from the author's sketches and photographs. Providence: The Ryder & Dearth Co., 1891.

Our readers are familiar with this book, which appeared in the pages of THE TIMES AND REGISTER, and is now republished in book form, on superfine calendered paper, elegantly bound, and with numerous illustrations. Dr. Hutchinson has paid many visits to the West Indies, and writes concerning them, *con amore*. He has done more than any other living man to direct public attention to these delightful islands, the most charming resorts for the winter months. We warn our readers against investing in this book, for if they once peruse it, nothing but a personal inspection of the places described will content them.

OBSTETRIC PROBLEMS. Being an inquiry into the nature of the forces determining head presentation, internal rotation, and also the development of the amnion. By D. T. SMITH, Lecturer on Medical Jurisprudence, University of Louisville. With illustrations. Louisville: John P. Morton & Co., 1892. Paper, 60 pages, price 25 cents.

A very carefully written monograph, on a subject of practical interest.

THE POCKET PHARMACY. With therapeutic index. A *résumé* of the clinical applications of remedies adapted to the pocket-case, for the treatment of emergencies and acute diseases. By JOHN AULDE, M.D. New York: D. Appleton & Co., 1892.

The author selects twenty-four remedies, suitable for the pocket-case, and on these builds a miniature system of practice, giving the uses that could be made of each of the remedies selected.

BACTERIOLOGICAL DIAGNOSIS: Tabular Aids for use in Practical Work. By JAMES EISENBERG, Ph.D., M.D., Vienna. Translated and augmented, with the permission of the author, from the second German edition by Norval H. Pierce, M.D., Surgeon to the Out-door Department of Michael Reese Hospital, etc. Philadelphia and London: The F. A. Davis Co., publishers, 1892. Cloth, pp. 184. Price, $1.50.

Granted that we must base our diagnosis upon a study of bacteria, this is the work that we must have constantly within our reach.

The Medical Digest.

A CASE OF AINHUM.—At the meeting of the West Kent Medico-Chirurgical Society, on February 5, Mr. Johnson Smith showed a case of the very curious disease known under the name of ainhum, the first, it is said, seen in this country. The patient, a tall, muscular negro, aged thirty-eight, from Jamaica, had been a sailor for eighteen years. Ten months ago he first complained of pain in the little toe of the right foot, and he noticed a slight constriction on the under surface. This has increased very much in depth and extended to the upper surface. There is now a very deep constriction on the plantar and inner surfaces of the toe, corresponding to the middle of the first pha-

lanx, and this groove is continuous with a shallow one on the dorsum. The distal portion of the toe is swollen. None of the other toes in either foot are similarly affected. There is much pain in the affected toe, which prevents the patient from sleeping at night. —*Hospital Gazette.*

DYSMENORRHŒA.—In dysmenorrhœa not due to mechanical obstruction, or when excessive pain continues after menstruation is fully established, there is often present uterine hyperesthesia, from abrasions from disintegrated decidua, in which the exposed nerve fibers are injured by blood clots and fragments of the exfoliated membrane. In such cases neurotic treatment is called for.—E. L. B. Godfrey.

INTERNAL ADMINISTRATION OF CHLOROFORM IN ENTERIC FEVER.—Dr. P. Werner, of St. Petersburg, has treated one hundred and thirty cases of enteric fever with a 1 per cent. solution of chloroform with the greatest success. His attention was first called to the use of this drug by the investigations of Behring as to the germicide action of chloroform upon the bacillus of typhoid fever, but he was not aware at the time that Dr. Steppe of Nurenburg had used chloroform in 1890. Dr. Werner made use of a 1 per cent. solution of chloroform in water, of which the patients took a tablespoonful every hour or every two hours during the height of the disease, and for some days after the temperature had become normal. In all cases in which this treatment was adopted, before the tenth day great improvement was manifested, and even when commenced as late as the third week benefit resulted. The usual typhoid symptoms did not appear, the tongue did not become brown, diarrhœa and tympanites gradually disappeared, there was no tendency to bedsores, and relapse was very rare. The treatment was in most instances well borne, but in four cases slight jaundice, sufficient to cause a discontinuance of the drug, was observed. Dr. Werner's observations agree with those of Dr. Steppe, and he considers this treatment well worthy of a trial, if for no other reason than its absolute harmlessness.

—*Lancet.*

DEATH FROM ALLEGED IRRITANT POISONING CAUSED BY EATING TINNED SALMON.—An inquest was held by the Deputy County Coroner, this day, on the body of a girl aged thirteen, who died on Monday at the house of her employer. On Friday, the 4th inst., the deceased partook, with two other persons, at tea, of a tin of salmon. This was at half-past six, and deceased went back to her place. Her mistress, who had seen her before she went out in her usual good health and spirits, noticed that on her return she looked cold and ill. She complained of stomach-ache, and after having some warm tea she went to bed. Next day (Saturday) and all Sunday she was ill, complaining of stomach-ache and vomiting. At half-past nine on Sunday night she moaned a little, and her mistress gave her some brandy. As the deceased said that she was comfortable, she was left for the night. On Monday morning she came down-stairs complaining of great thirst and looking very ill. Even after three cups of tea she felt thirsty. Dr. Mitchell was then called in, and pronounced her to be very seriously ill. They laid her on a couch in the kitchen, and she died soon after the doctor's visit. Dr. Jackson, who made the post-mortem examination, deposed that death was caused by acute inflammation of the bowels, and Dr. Mitchell expressed an opinion that the symptoms pointed to poisoning. The deceased's sister, who had also eaten the salmon, felt sick, but recovered, while a seafaring man who also had it felt no ill-effects whatever. The jury found that the cause of death was inflammation of the stomach, set up by an irritant poison.—*Lancet.*

NEPHRITIS FOLLOWING DIPHTHERIA.—The case occurred in a family, three members of which have just recovered from this disease in all its details.

She was five years old, strong before the attack, and apparently well on the road to recovery. The membrane had all disappeared, temperature had declined, and she was progressing nicely. I stated to the parents that I would not return again unless I was called, gave full instructions as to care, diet, etc., and told them to watch for paralysis. In a few days the father told me that the appetite did not seem to improve much, that food and drink passed through the nose, and that she had a nasal tone of voice. I ordered the elixir of the phosphates of quinine, iron and strychnine, three times a day, and she seemed to improve. Later on they told me her face was swollen a little. I obtained a sample of urine, and found albumen, mucus, epithelial cells, etc., and the quantity passed was small. Uræmia was also marked; there was inclination to sleep unless aroused by something; the skin also showed the cachexia common to these cases. I at once ordered potassium acetate and infusion of digitalis, also a tonic of iron, etc., with spirits of mindererus and a mild cathartic (for the heart was weak); flaxseed and mustard poultices over the kidneys; promoted diaphoresis by warm bottles of water, blankets, steam, etc. In spite of these measures she kept getting worse; passed a spoonful at a time of smoky urine; the heart action became irregular and so weak that the pulsations could scarcely be counted; the subcutaneous tissues all over the body were infiltrated; there was a slight effusion in the right pleural cavity, accompanied with marked dyspnœa. It seemed that uræmic convulsions would set in any minute.

I had Dr. Wm. R. McKenzie, of Chester, called in. We supplemented the treatment with inunctions of animal fat and quinine, giving brandy and milk at regular intervals. Her heart was too weak for active diaphoretics and cathartics. She wavered for a couple of days, and then changed for the better, brightened up, the urine increased to nearly normal, albumen disappeared, pulse became regular, appetite increased, and she is now well on the road to recovery.

The point I wish to make is this: Be sure and examine the urine in these cases at intervals. I think I made a mistake in not doing this sooner, which I will not make next time.

—W. H. Townsend, in *St. Louis Clinique.*

FRACTURE OF THE PENIS.—On February 1st, about midnight, I was called to see A. B——, a Hebrew, about thirty years of age. I found him greatly agitated, and sitting up in bed holding his penis. As soon as he saw me he called out several times in great distress, "Oh, doctor, I have broken my penis!" On examination I found blood escaping from the urethra, the sheets and patient's hands soiled with blood, and the penis arched toward the left with a distinct sulcus midway between the symphysis pubes and the glans, the whole organ very much engorged, more especially the right corpus cavernosum, and the skin of a darkish blue color. The patient gave the history of an old stricture, which he had been treating with Ag. No. 3 bougies, under medical advice.

History of Accident.—About half an hour before, on getting warm in bed, the organ being in an extreme condition of engorgement, he had forcibly tried to turn it down under the left thigh.

Treatment.—A number of English gum elastic catheters was passed without much difficulty into the bladder, and a small quantity of normal urine drawn off. On withdrawing the instrument a small clot was entangled in its eye. Fearing sloughing, which must have inevitably taken place, fourteen small incisions were made, mostly on the right side, and toward the distal end of the organ. Considerable blood and serum were allowed to escape, the part was freely dusted with iodoform, and enveloped in a linseed poultice, the glans being left uncovered. After the incisions patient expressed himself much relieved, but the part was still very swollen, blackish, and bent over to the left; the privates were raised on a soft pillow. The poultices were renewed every two hours during the night. At my morning visit the parts looked better, and were not quite so much swollen.

Much the same treatment was continued for six or seven days, the poultices every three hours, and a soft rubber catheter left with the patient. All the incisions at the end of a week were healed, except one just behind the glans, on the right side, and the penis had almost recovered its normal size and color. On the eighth day the poultices were discontinued, and a dressing of iodoform ℥ j. in lanoline ℥ j. used, being spread on lint and changed twice a day.

On the eve of the ninth day patient had difficulty in passing the catheter, and found the urine ran along its side and escaped from the unclosed incision on the right side; with considerable force, however, this was avoided in the future by using a full-sized rubber catheter, and emptying the bladder three times in the day. The patient left his bed on the fifteenth day, the iodoform ointment being still used. When I saw him last on February 19, the wounds were all healed and the penis looked normal, the catheter being discontinued.

The case has seemed to me so unique in its details that I have ventured to record it, having never in a large hospital experience seen anything quite like it.

The fact of the patient being circumcised was, of course, in his favor as regards the final result.

It would seem that the hemorrhage from the urethra following the accident, and subsequent escape of urine from the wound mentioned, and the peculiar bending of the organ, pointed to the fact that the penis had practically undergone a green-stick fracture, with a rent of the urethra on the side of the convexity; in fact, it was possible at the last examination to trace a tract of adhesive inflammation from below upward, and along this the urine must have made its way.—*Med. Record.*

Bromide of Gold in Nervous Affections.—Case I.—Mrs. H., aged forty five, married, mother of six children. Always enjoyed good health until about six years ago, when the first manifestations of menopause occurred. Then she had muscular rheumatism affecting several sets of muscles in different regions and finally severe and frequent attacks of hemicrania. About the same time, in the middle of the night, her husband noticed her breathing very hard, the lips bathed with bloody foam and in a state of unconsciousness. I was summoned immediately, but before my arrival she had recovered consciousness; complained of severe headache and was entirely ignorant of the fact that brought me to her bedside.

On examination, found cardiac and respiratory actions, as well as temperature, normal, pupils responded promptly to the action of light, but the tongue was somewhat coated and there was some flatulence.

Diagnosis.—Indigestion. The appropriate treatment was used, but similar attacks recurred at intervals of from three weeks to two or three months, always during the night and invariably followed by headache.

A closer investigation of the case brought me to a different diagnosis: Hystero-epilepsia, assuming the form usually denominated by the French—*le petit mal.* A change in the therapeutics was instituted, wherein the bromides figured most conspicuously, but, unfortunately, there was no improvement in my patient. Being at about my wits' end, resolved to try bromide of gold, thus prescribed it in granules ($\frac{1}{67}$ gr.), three to be taken every three hours. Soon after, the seizures recurred at longer intervals, the granules were ordered once in four hours, and at my last intelligence, no seizure had taken place for eight months.

Case II.—Mrs. C. McC., aged twenty-nine, married; heavy set; no children. Before marriage and ever since, has been more or less an invalid, suffering from severe periodical headaches, pain in the pericardial region, some cough, and insomnia; all these phenomena associated to a state of nervous and mental depression, aggravated during her menses, which were difficult and painful.

Auscultation revealed a condition of cardiac irritability, the beats being very rapid and somewhat feeble; there was habitual constipation and abdominal palpation showed the presence of considerable flatus. Vaginal inspection was deferred at the request of the patient.

Diagnosis.—Hysteria, torpor of the intestinal canal and excessive reflex action.

Therapy.—Three granules of podophylline, with two of hyoscyamine, at bed-time. One granule of nitro-glycerine ever four hours.

The evacuation of the bowels brought on some relief in the flatulence, but all other symptoms persevered.

Therapy.—Three granules of monobromide of gold every three hours, in addition to the cathartics.

The second day after the use of the last granules, all symptoms gradually abated, and in a week's time she was able to attend to her household duties. Ever since—three months have gone by—she has had only slight recurrences of her previous suffering, which yield promptly to the same medication.

Case III.—Mr. L., aged forty, book-keeper, nervous temperament, very light weight. Has suffered for over ten years with hemicrania, lasting sometimes three days, when he has to be confined in bed, in a dark room, abstaining from all food. It recurs every three or four weeks. Auscultation revealed a slow and weak cardiac action, without any abnormal sounds. A thorough examination elicited no further light on the subject.

Diagnosis.—Cerebral anemia, cardiac weakness.

Therapy.—One granule of glonoin every four hours; and two of phosphate of iron, with two of arseniate of strychnine before each meal.

After two weeks' trial no improvement took place, and two granules of monobrom of gold were ordered every three hours in lieu of those of glonoin. The headaches became lighter and farther apart, and at the end of three months of the same treatment, the

patient began to gain flesh and strength, being able to attend to business regularly, though at times suffering a little from the old trouble if he overworks at the desk. It is now seven months since he first consulted us.—Silva, in *The Alkaloid.*

At the New York Academy of Medicine, on February 18, there was a very interesting discussion on "Hypertrophy of the Tonsils." Dr. Morris J. Asch was requested by Dr. Knight, Chairman of the Section on Rhinology and Laryngology, under whose auspices the meeting was held, to open the discussion on this subject. He treated of it under the heading, "When to Operate and the Method." The character of the trouble was often manifest in the child's physiognomy. The mouth half open, the nostrils dilated, evidence of embarrassed respiration, appearance of stupidity—such were symptoms often observed in marked tonsillar hypertrophy. He believed authorities were agreed that interference with the respiration could bring about arrest of mental as well as of physical development. One principal symptom which had led him to operate was snoring at night. Further, there might be otitis, due to the enlargement of the tonsils; and there was a tendency in these patients to quinsy, due, he thought, to their breathing through the mouth instead of through the nostrils. The patient might also complain of deglutition.

Regarding surgical methods, they consisted to day chiefly of two, namely, removal by the knife or by the cautery. It was generally supposed that the method by the cautery was new, but this was not true; it was as old as medicine, but it had largely dropped out of use until recent years, and not until still more recently had it been applied with the skill made possible by improved methods. Two forms of actual cautery were mostly in use, namely, electro-puncture and electro-excision. Electro-puncture, the speaker said, could not become popular among general practitioners, owing to the number of applications and time which it required. The galvano-cautery loop was sometimes made use of for excising the tonsil. The cold snare had also been recommended for the same purpose, but he doubted whether it would come into favor since it produced extreme pain.

Regarding excision of the tonsil by the knife or guillotine, he said it was done frequently, yet it was an extremely dangerous operation. He did not mean to say that it was a difficult operation, but there might be abnormal arterial distribution causing hemorrhage which could not be controlled. Danger of serious hemorrhage could be referred to three sources:

1. Abnormal distribution of vessels.
2. Venus plexus behind.
3. Profuse capillary bleeding.

The vessels being sclerosed in hypertrophy of the tonsil, they were liable to remain open when divided, and thus cause serious hemorrhage. There was no other way to control hemorrhage, he believed, than by pressure. In a case where a loop of the carotid artery entered the tonsil and was divided during excision, the patient died in a few seconds. He gave preference to Mackenzie's modification of the tonsillotome in the way of cutting instruments. He would not operate simply because a tonsil was very large; but would operate if it interfered with respiration, or caused frequent attacks of quinsy, or interfered with audition.

The Existence of a Tonsil Should be Regarded as a Disease.—Dr. F. H. Bosworth said that ten or eleven years ago he had made the assertion that practically there is no tonsil in the healthy throat. The existence of a tonsil should be regarded as a disease to be dealt with summarily and promptly. As to symptoms, he did not think snoring and interference with breathing was to be attributed to enlarged tonsils, but rather to enlarged so called third tonsil or enlarged glands in the pharynx. He did not believe that enlarged faucial tonsils gave rise to difficult breathing, or nasal catarrh, or difficult hearing.

What tonsils should be cut out? All tonsils should be cut out. Tonsils meant diseased lymphatic tissue, which if it remained a sufficient length of time would then continue to exist during life. It had been said that tonsils disappeared at puberty, but he could say they did nothing of the sort. They shrank up at puberty, but in doing so they became a source of no inconsiderable trouble, especially in forming places for the accumulation of mucus which would undergo cheesy degeneration. Continuing, Dr. Bosworth asked, What constitutes a healthy tonsil? How were we to tell? How many children were in a state of absolute health regarding their lymphatic glands? When the glands were enlarged he assumed that they were diseased. Yet he would not say remove every tonsil. But as soon as a so-called enlarged tonsil caused symptoms he would remove it.

As to mode of operating, he condemned the electro-puncture, which sometimes required even fifty or sixty sittings, whereas a second was sufficient time by the knife. Moreover, the reaction following electro-puncture stimulated the formation of connective tissue, and created a worse condition than the one which it was intended to remove. As to the knife proper, it required a wonderfully skilled surgeon to use it safely in a struggling child. He preferred the French tonsillitome to Mackenzie's. He did not consider tonsillotomy a dangerous operation; he knew of no recorded death from it by a surgeon. No surgeon would cut the carotid artery. He had seen no serious hemorrhage in the child, but in adults there was more or less perplexing bleeding, and he there employed the cold snare. As to removal of part of the tonsil only, he regarded it about as justifiable as taking off only a part of a uterine fibroid. Something was left which could be of no further use than to act as a trap for disease.

Tonsillotomy not Dangerous.—Dr. D. B. Delavan thought there was a great deal more truth than fancy in Dr. Bosworth's views of the pathology of the tonsils. He thought the tonsil should be treated surgically when it was hypertrophied to the extent of forming an obstruction in the naso pharynx, or when it caused recurring attacks of follicular tonsillitis. As to hemorrhage, he had seen only one instance of marked hemorrhage in a child, and that patient happened to be of the hemorrhagic diathesis. The tonsillitome was best in children. He would employ the cautery only where the knife was specially contra-indicated or the patient would not allow it to be used. Keep the first clot on if possible, and there would be quick healing. He thought that ere long men would cease to burn the throat and nose as much as at present. He would not advise the general practitioner without special instruction in throat difficulties to do tonsillotomy.

Congestion versus Hypertrophy.—Dr. O. B. Douglas had been in the habit of regarding the enlarged tonsil not as necessarily hypertrophied; it might be simply inflamed or congested. Instead, therefore, of always removing it, he now first tried to reduce its size by astringents, etc., or, if there were a cause outside, he treated that. In the case, however, of enlarged or pharyngeal tonsil, he would remove it.

A common source of enlargement of the tonsils was a diseased condition within the nose, which should be treated. Often there was connection between the enlarged faucial tonsil and anterior pillar of the fauces, and by separating them the tonsil would frequently be caused to subside. Where there was interference with breathing, deglutition, etc., remove the tonsil, but not otherwise. He believed it was often removed where it should not be.

Is the Specialist Extreme?—Dr. Beverly Robinson remarked that if one looked upon the tonsils from the specialist's point of view, it would seem that all would have to come out. He was decidedly of the opinion that not every tonsil meant disease, or that every enlarged tonsil should come out. Nor did he believe that in the majority of cases where the tonsil called for surgical treatment that the whole gland should be removed. Further, he believed that the danger from hemorrhage was much increased by removing the entire tonsil. Again, he believed that disease was more likely to follow complete excision than partial excision. He felt some anxiety in taking out large tonsils in children, for there undoubtedly were cases of death due directly or indirectly to the operation. If one wished to resort to galvano-puncture, he was convinced that it would seldom be necessary to hold more than half a dozen sittings. The cautery was specially useful in breaking up crypts in which mucus lodged. Here it was more rational than total or partial excision.

Dr. Robinson said he knew one specialist in the city who removed a great many tonsils, but did not have his own, which were enlarged, operated upon. He seemed to think there were a good many people who were more willing to act out their ideas on others than to be experimented upon themselves.

Indications for Galvano-Puncture.—Dr. Knight, Chairman of the Section, being called upon, explained the position which he held with regard to galvano-puncture, with which his name had become somewhat connected. There were only four conditions in which he would resort to galvano puncture instead of excision:

1. Where one could distinctly recognize vascular anomally.

2. Where the tonsil was deeply buried, flat, diffuse, perhaps adherent with the pillars, and could not be included readily in tonsillitome.

3. In hæmophilia.

4. Where the patient absolutely refused to be cut. Regarding the number of sittings, he called for fewer than formerly if the patient were tolerant of a number of punctures at a sitting. The electric wire-loop was useful if the patient was willing to put up with the greater suffering.

Enlarged Tonsils and Stupidity.—Dr. A. Jacobi thought there was less difference of opinion between the speakers than there seemed to be. The stupidity, which had been explained by interference with the respiration, he would attribute to the connection between the glands in the pharynx and those within the cranium, the latter being diseased secondarily, directly influencing cerebral or mental function and development. As to abscesses being caused by electro-puncture, this should not be if the method were practised aright; that is, do not leave blind pouches by the puncture. Several attacks of follicular abscess constituted a good indication for surgical treatment of the tonsils.

Opposed to Wholesale Tonsillotomy.—Dr. Agramonte opposed wholesale tonsillotomy, if for no other reason than the fact that some deaths had undoubtedly been due to the operation. Yet where the enlarged tonsils obstructed breathing, gave rise to attacks of tonsillitis or diphtheria, etc., they should be removed. One should always be prepared to meet hemorrhage; have the cautery and other agents convenient. Before operating, feel for pulsation in the tonsil with the finger. He had seen frequent attacks of follicular tonsillitis and diphtheria cease in the adult after tonsillotomy. —*Med. Record.*

THE EMPLOYMENT OF DIURETIN IN CHILDREN.—According to Dr. R. Demme, of Berne, this drug can be given to children between two and five years of age in doses of 0.50 gramme daily, and in doses of 1.50 grammes to those between six and ten. In infants under one year it is liable to cause gastro-intestinal irritation. It appears to act upon the renal epithelium, and has proved of service in the dropsy of scarlatinal nephritis as well as in that due to mitral disease, after digitalis had proved ineffectual. Its action is not cumulative, but in one case of amyloid degeneration of the liver, kidneys, and spleen, its use caused an erythematous rash, accompanied with profuse diarrhœa.—*Lancet.*

URÆMIA.—Many middle-aged men are unwittingly the victims of a mild form of chronic uræmia; going about their daily avocations with heavy heads, hot skins, drowsiness, blurred sight, shortness of breath, and general feeling of uneasiness, "stuppiness," oppression, and malaise. All these symptoms are quite consistent with derangement of the liver and digestive organs, but they are also frequently due to torpor of the kidneys, not yet actual disease, added to a lazy action of the skin. This leads them instinctively to the use of Turkish baths, hot water baths, and other modes of rapid elimination. And they really experience almost magical relief, feeling as though they breathe luxuriously through the skin as well as the lungs, for they have just expelled quite a quantity of pent-up poison from their tissues. This poison consists of urea and other nitrogenized constituents of urine; and when a more formidable amount is locked up in the blood, through more urgent failure of the kidneys, headache, vomiting, puffiness of the eyelids and face, ascites, and most alarming symptoms of blood-poisoning develop. The pupils now dilate, the odor of the breath and perspiration become "urinous," the breathing is labored, and there is evident cerebral disturbance, leading to delirium, convulsions, and coma. Sometimes an attack simulating epilepsy or apoplexy sounds the first note of warning. These symptoms constitute acute "uræmia," or an accumulation of urea in the blood, though it is just as likely due to other excrementatious products; in fact, in many instances, as in the uræmia of cholera and some hepatic diseases, the vital fluid is singularly free from urea. The diseases associated with acute uræmia include the various forms of Bright's disease; typhus, typhoid, scarlet and yellow fevers; small-pox, pleurisy, and probably diphtheria and acute rheumatism; extravasation and suppression of urine, stone in the kidneys, impacted calculi in the ureters, impassable stricture of the urethra, and cancer of the uterus. The treatment must necessarily be active, but it is far from satisfactory in severe cases. Horizontal posture, with the head raised; cold applications to the scalp; sinapisms to the loins; vapor baths; purgatives; diaphoretics; hot blankets; sometimes bleeding; chloroform or ether; jaborandi; nitroglycerine; oxygen inhalations; digitalis leaves as

poultices to the abdomen; and transfusion of blood. Diuretics are to be avoided when the kidneys are in a state of irritation; and the main channels of elimination shall be sought through the media of the skin and intestines.—Louis Lewis.

Dr. Pavy (London) regards diabetes as essentially the faulty assimilation of the carbo-hydrate elements of food. The fact should not be lost sight of that glycogen and sugar are universal constituents of the body. Carbo-hydrate material might be locked up in proteid compounds, such as the glucosides. Mucin, which exists extensively throughout the body, has comparatively recently been demonstrated to be a glucoside, a complex proteid molecule consisting of a simpler protéid in combination with a carbo-hydrate. The statement often made that the liver is more saccharine than any other organ of the body, is not true; nor is it true that the portal vein contains less sugar than the hepatic vein. He performed a great number of experiments with a view to determine this point, and in all instances he found that the portal vein contained much more sugar than did any other vein in the system, and therefore, if blood of the same quality as the portal blood circulated through the body generally, it would certainly invariably give rise to diabetes. The amount of sugar found in the urine is always proportionate to the amount of sugar at the time in the blood. A trace of sugar could always be found existing in normal urine, which corresponded precisely with the amount found existing in the general circulation. A deviation in the amount of sugar in the urine would indicate a deviation of the blood in this respect from its natural state, and in proportion to its deviation from this natural state would be the impairment of the health of the patient. If his views were correct, it followed that the first object in treatment should be to bring back the blood to its natural state. In some cases there was actually a return of assimilative power, but this would never come about if the urine were permitted to contain much sugar. His habit with those patients whose assimilative power was gradually being restored was to give them some carbo-hydrate, at first in very small quantities, and then gradually increase it, taking the urine as a guide, and keeping it free from sugar. The kind of carbo-hydrate material administered was perhaps not of much moment, but it should be remembered that substances like cane sugar were more irritating than the starches. Given a patient under diet in whom the assimilative power was being restored, a safe indication of this was to be found in the fact that when the restoration was beginning the patient would commence to lose weight, though previously, under the same regimen, he had been gaining weight. In the case of people beyond middle life, where the assimilative power was not restored, they would keep on a restricted diet for years and not lose weight.

Heart disease in childhood, whether functional or organic, is apt to be overlooked and misunderstood. Overlooked because its early signs are often only discoverable by careful physical examination, and misunderstood because such divergence from the normal as in the adult usually implies structure change is in the child often due to temporary disturbance. Owing to the equivocal symptoms of acute rheumatism in children, and the indistinct and intermittent character of pericardial rub at that age, the occurrence of pericarditis, which may mean the commencement of heart disease, often escapes notice. The earliest physical signs proper to endocarditis cannot be defined. The heart's sounds and action are invariably modified in acute rheumatism, and while pericarditis almost implies endocarditis, irregular rhythm, systolic apex murmur, doubling of second sound, slight presystolic murmur, will all in their several degrees suggest it; but undubitable signs of material heart change are gradually developed as the result, and not by the mere presence, of endocarditis. The clinical history and morbid anatomy of chorea warrant the belief that nitral systolic murmur, increasing until it becomes slightly blowing, and then decreasing until it disappears, may be due to a form of mitral endocarditis common in chorea, less common in rheumatism, that is recovered from without heart deformity. Mitral stenosis, the common sequel of rheumatic endocarditis, is not at once disabling. The well-being of a child having this defect depends largely on his immunity from subsequent rheumatic attacks, however slight; and what chiefly abridges the period of health he will enjoy is the occurrence of adherent pericardium either in the first or some later attack.

—Dr. O. Sturges, *Lancet.*

A few years ago a man had been injured in a colliery accident in England, and was suffering so much that his medical attendant thought it advisable to administer opium, and accordingly sent a bottle of medicine, of which one dose was given at bedtime. Early in the morning the man was found dead. The medical man was new in the neighborhood, and rumors were circulated that he had poisoned the patient. These rumors reached the Coroner's ears (himself a medical man), and inspired him with a desire to defend one of his own profession. Accordingly, after the necessary inquiries into the case, he turned to the jury, and said, "Now, gentlemen, I hear that some of you think the doctor poisoned this man; I will soon show you that he did not. You see this bottle contained several doses of the medicine. The man took one, and there are several left. Well, to show you that it is not poison, I will drink a good dose of it myself, and it will warm my stomach." This he accordingly did, and the proof was triumphant, for he is alive and well to-day.

Physiology of the Trachea.—The trachea is not a rigid tube; it continually varies in length and diameter under the influence of breathing and speaking. It swells and elongates during expiration, and contracts and shortens during inspiration. It is distended in talking, and especially during singing and shouting; shrill tones dilate it also. These elastic properties have their uses, and alterations, such as loss of contractility, have baneful effects. Persons who have to use the voice often and loudly, are subject to an aneurismal dilatation in the cervical region of the trachea, which entails almost complete loss of speech. In such cases it is necessary to compress the trachea in such a way as to hinder its expansion. This can be done with the fingers or with a suitable apparatus.—*Bulletin Medical.*

Abscess situated outside of the dura-mater, between that membrane and the skull-bones, is nearly always of a tuberculous nature.

—Dr. Hocke, *Paris.*

DR. LAUDER BRUNTON (London) advocates as an article of diet useful to diabetic patients, the *pommes de terre frites*, as cooked in France. They are not really fried, but the potatoes are cut in very thin slices, thrown into boiling oil, which browns them at once, and then they are taken out and dried. As a rule, English cooks, in attempting to make this dish do not use enough oil, and they do not allow it to heat enough. They serve excellently to relieve the monotony of a purely proteid diet.

AS REGARDS the pathology of asthma, Dr. Wilson Fox adheres to the views of Cullen and Laennec, that the spasm of asthma depends upon the contractility of the circular muscular fibers of the bronchi, and that it is essentially spasmodic in character. He says: "Although this view has often been disputed, it has remained the prevalent one up to the present day, and is, I believe, the only one by which the phenomena of the disorder can be adequately explained." With this statement we cordially agree.

—*Lancet.*

ON NERVOUS COUGH. (Dr. P. Rangé.)—The author discusses the character, nature and symptomatology of this curious affection, on which authors are far from being in accord. Nervous cough, seems to him, allied with a particular condition of the cerebral functions, and related to mental medicine, as much as to common pathology. If all patients of this class are not hysterical, they are all neuropathics in whom the cough is only one of the manifestations of the original nervous diathesis. The author rests his theory on the marvelous results of moral treatment which alone, according to him, almost certainly cures. Threats and intimidation with children, reasoning and efforts of the will power with adults. Such are the means which should be employed. Endolarygeal operations may also give good results, but still, in these cases, M. Rangé thinks that the treatment acts more on the brain than on the mucous membrane of the larynx.—*Bulletin Medicale.*

EXPERIMENTAL RESEARCHES ON THE ANTIFERMENTIVE AND MICROBICIDE ACTION OF ANTIPYRINE. (Cazeneure and Viobeck).—Antipyrine, besides its antipyretic and nervine effects, also presents an antiseptic and antifermentative action (or properties). Administered in doses of 6 to 8 grains per day, to dieted patients, it may have a special action on the soluble ferments, pepsin, diastase, pancreatin, etc., moreover, outside of its action on microbes, it can act chemically on toxalbumen or other secreted products, and modify the physiological properties of these substances. In the proportion of 5 per cent. it lessens alcoholic fermentation without, however, arresting it. Lactic acid fermentation is slackened proportionately to the amount of antipyrine, following a regular curve; with 5 per cent. there is not a complete arrest of action. Ammoniacal fermentation of urine is retarded by 50 per cent. of antipyrine. With 1, 2, 3 and 4 per cent., the slowing in the *hydratation* (?) of urea is considerable. With 5 per cent. the phenomenon of hydratation is totally stopped. One grain of antipyrine added to 100 cc. of blood diluted with ten times it weight of water, retard putrefaction indefinitely. Practical results should be derived from the foregoing experiments. In purulent cystitis, urethitis, otitis, the injection into the infected parts of solutions 5 per cent. or 10 per cent. or even more, of antipyrine, would appear worthy of a trial.

Its great solubility in water, non-irritant qualities, analgesic action, and energetic antiseptic power in these amounts, are so many favorable conditions which should tempt the therapeutist.

—*Revue Jour. de Med. Ch. and Obs.*

HYPERTROPHIC RHINITIS FOLLOWED BY LOSS OF SMELL. CURE. (Ragoneau).—Having had occasion to treat several cases of acquired anosmia (loss of sense of smell), and knowing how difficult it is to obtain success in a like affection, we are occupied in seeking the causes of this nervous trouble, in order that we may apply a proper and efficacious treatment. The first point which strikes us is that all the patients attacked with this affection whom we have attended were, more or less, neuropathic, without nervous symptoms, however, but impressionable and emotional, literally startled at nothing, some being subject to facial or dental neuralgia, others of a violent and irritable nature. In nearly all we have observed an exaltation of the sensibility of the mucous membranes. We are then quite disposed to admit that this nervous temperament enters very much into the production of anosmia. There is nothing strange in this, for we know that neuropathics are liable to the most varied and odd symptoms.

All the patients submitted to our examination were attacked with pronounced hypertrophic rhinitis; the hypertrophy was bi-lateral, and affected particularly the mucous membrane of the two inferior turbinated bones. One of these patients had besides, on the median portion of the middle turbinated bone, a small vegetation, which the microscope showed to be of a myxomatous nature. In nearly all the rhinitis arose as a sequel to the influenza of 1890.

The affection began with more or less severe nasal obstruction, soon followed by mucous discharge, until then the sense of taste remained intact, and that of smell was simply weakened. This condition lasted for a certain time about three months, then the nasal flow lessened, but the obstruction was at its height; smell and taste progressively diminished until they completely disappeared.

It was then that these patients decided on a consultation, not because of the loss of function, which they considered irreparable, but more on account of difficulty of nasal respiration.

A minute examination of this cavity showed us the existence of considerable bi-lateral hypertrophy of the inferior turbinated bones, the mucous membrane was of a deep red color, greatly congested, bleeding and painful at the lightest touch. Little or no secretion, and only produced at certain times, every two or three days; for example, disappearing during the intervals; a true intermittent blenorrhœa. The nasopharynx presented nothing abnormal, no tonsillar hypertrophy, the pharyngo-laryngeal region showed only a light degree of redness, but without inflammation. After having caused the disappearance of the hypertrophy by ordinary means, we instituted the following treatment, which produced an excellent result, and was followed by cure:

1. Touching the mucous membrane of the nose with a solution of chloride of zinc, 1 to 10, twice a week.

2. During the following eight days to use the following powder, four or five times a day:

R.—Acetanilid	5	grammes.
Iodol	5	"
Oxychloride bismuth	15	"

Perfumed with benzoin.

Then to alternate during the next eight days with

℞.—Sulphate strychnine(neutral)..... 0.08 gramme.
Powdered tobacoo,
Oxychloride bismuth.....āā 6 grammes.
Powdered benzoin..... 0.40 gramme.
The powder to be used three times a day at regular intervals.

Eight days afterwards to revert to the first powder, and so in succession.

This treatment, followed out vigorously for five consecutive weeks, brought about a rapid cure. To-day (three months after cessation of treatment), taste and smell are as acute as formerly, and the nasal discharge has entirely ceased.—*Revue de Laryngologie, d' Otol ogie et de Rhinologie.*

Translated by E. W. Bing, M.D.

FRENCH NOTES.

A. E. Roussel, M.D.

Transmission of Tuberculosis to a Guinea-pig by the Semen of a Phthisical Patient. (M. Soles).—After producing conclusive evidence to the above effect the author goes on to say: If the semen of a patient forty-five years of age, and suffering from phthisis for a long period of time, possesses such power of transmission, what must be the case in more vigorous persons of a younger age married to healthy women? Are these not important factors in the transmission of the disease?

—*Revue Generale de Médicine, etc.*

Oxalic Acid as a Emmenagogue (Marsh).—The author considers oxalic acid as one of the best emmenagogues. He has employed it successfully in a considerable number of cases of amenorrhœa, no matter what the cause. Its main points of superiority over other remedies of a similar nature is the absence of all taste as well as irritating action on the stomach, and its certitude of action. He also makes use of it for its calmative action in cystitis. He uses the following formula:

℞.—Acid oxalic..... gr. xv.
Syrup of bitter orange peel..... ʒj.
Rain water, or distilled water..... ʒiij.
M.—Sig. Teaspoonful every four hours.

—*La Médicine Modern.*

An Excellent Cardiac Tonic (Huchard):

℞.—Tincture of kola..... ʒx.
Tincture of coca..... ʒvij.
Tincture of squills..... ʒv.
Tincture of digitalis..... ʒv.
Syrup of cherries..... ʒij.
Wine of lunel..... ʒiiss.
Let stand, then filter.
A tablespoonful two or three times daily for ten days.

For Diarrhœa:

℞.—Extract of kola..... gr. xv.
Powdered kola.....q. s.
For 100 pills.
Ten or fifteen to be taken each day.

—*Bulletin de Therapeutique.*

Tonic and Expectorant Mixtures for Pneumonia and La Grippe (P. Yvon).—

Tonic Mixture:

℞.—Acetate of ammonia..... ʒi–iij.
Tincture of canella..... ʒiss.
Extract of cinchona..... gr. xxx.
Distilled licorice water..... ʒiv.
Syr. of bitter orange peel..... ʒj.
M. Sig.—ʒj every hour.

Tonic Mixture (Alcoholic):

℞.—Acetate of ammonia..... ʒi–iij.
Extract of cinchona..... ʒss–j.
Potion of food (Codex)..... ʒiv.
M. Sig.—ʒj every hour.

Simple Tonic Mixture.—

℞.—Syrup of cinchona..... ʒvj.
Tincture of licorice comp..... ʒj.
Peppermint water..... ʒj.
Water..... ʒiij.
M.—Sig. Tablespoonful dose.

Expectorant Mixture (Delioux).—

℞.—Carbonate of ammonia..... gr. xv–xxx.
Brandy..... ʒj.
Orange flower water..... ʒx.
Syrup of acacia..... ʒvj.
Syrup of morphia..... ʒiv.
Syrup of tolu balsam..... ʒv.
M.—Sig. ʒj every hour.

—*Le Progrès Medicale.*

The Lactate of Strontium in Albuminuria.—Professor Dujardin-Beaumetz treated, at the Cochin Hospital, five albuminuric patients with lactate of strontium (Paraf-Javal), giving the salt in 2-gramme doses only, three times a day, although 10 grammes may be given daily. These cases included several of the forms of albuminuria; among them were two cardiac cases and a well-marked case of Bright's disease. In a report to the Paris Academy of Medicine, Dr. Dujardin-Beaumetz said: "In from one to four days I obtained in all of these patients a reduction, *to one-half*, of the amount of albumen in the urine. Evidently we now have a precious medicament for this condition, and one which is sure, potent and inoffensive."

Dr. Constantin Paul, in a report to the Academy, July 28, 1891, said, in reference to the action of the lactate of strontium in Bright's disease: "It is not a diuretic, but it notably diminishes the quantity of albumin while effecting a rapid amelioration of the other symptoms. The number of my cases treated with it is not yet large, but the results are such as to lead me to recommend a trial of this medicament to other physicians." In a later report to the Therapeutic Society (November 11), M. Paul reaffirms his first conclusions, and adds: "The lactate of strontium has done excellent service in parenchymatous, rheumatismal nephritis, in the nephritis of gouty and scrofulous patients, and in the albuminuria of pregnant or recently delivered women; I have reason to hope for the same excellent results in the albuminuria of scarlatina. *Even the presence of an intense febrile process does not interfere with the action of lactate of strontium in parenchymatous nephritis.*"

The results obtained by Drs. Paul and Dujardin-Beaumetz were also gained by Dr. Bucquoy, who reports some cases in which the amount of albumin in the urine was reduced one-half within twenty-four hours after the beginning of treatment.

Other observers have reported a number of cases in which this salt has had a decidedly beneficial action in diabetes of hepatic origin and in cirrhosis of the liver. The primary action of the medicament seems to have been upon the nutritive organs. Anorexia and the epigastric phenomena soon disappeared, and, finally, the glycosuria, polyuria, and polydipsia gave way as the signs of general amelioration became manifest.

GERMAN NOTES.

HERMAN D. MARCUS, M.D.,
Resident Physician at the Philadelphia Hospital.

TREATMENT OF CHLOROSIS.—Dr. Vaczi recommends Blaud's pills in combination with:

℞.—Tr. strophant.,
Aq. amygdal. amar.....āā gtt. x.
Three times daily in above affections.

ICHTHYOL IN ERYSIPELAS.—Dr. Sachs (Dresden) uses following treatment in erysipelas:

He paints the erysipelatous part and two centimeters around it with a 10 per cent. ichthyol-collodion. Tension and pain disappear almost immediately, followed soon by fall of temperature. In many cases the skin resumed its normal aspect in two days.

—*Therap. Monatshefte.*

HYDROPATHIC TREATMENT OF MEASLES.—Dr. S. Baum (Vienna), reports following:

A boy, suffering from measles, had on the sixth day sudden collapse. Temperature of 104° and accellerated pulse, apparently pointing to cardiac failure. Examination of the thorax showed dullness, with bronchial breathing, from the angle of the scapula downward on the left side. The patient was seated in a hip-bath of 88°, and treated *lege artis* by an experienced servant for eight minutes, during which time the temperature of the bath was gradually lessened to 77°. Water of a temperature of 63° was meanwhile poured on the back. After the bath the patient looked better, the pulse was stronger, the skin cooler, sensorium clearer, the appetite improved.

The same proceedings were repeated in the evening and at night.

During the time intervening between the bath, cross bandages were applied to the thorax, which were visibly of benefit. During the next twenty-four hours these baths were repeated whenever the temperature rose to 102° (six times), but the hip-bath was reduced from 81° to 68°. During the following days only two or three baths were found necessary. On the fifth day the physical signs were nearly normal.—*Blaetter f. Klin. Hydrotherapie.*

ATROPINE AND MORPHINE. — Prof. Unverricht (Dorpat), publishes the following regarding the antagonistic properties of atropine and morphine:

Many practitioners have claimed that atropine is an antidote in morphine poisoning. This supposition has been disproved by experiments on animals, experiments which Herrback endeavors to explain by faulty work and experimentation. He claimed that it is possible to arrange the experiments in such a manner as to make the antagonistic properties of these drugs self evident.

Binz lays special stress on the increased excitability of the center of respiration when atropine is exhibited.

Unverricht had occasion to study a case in which the diminished action of the respiratory centers caused by morphine were not improved by atropine.

Patient had emphysema and degeneration of the heart. He had pronounced Cheyne-Stokes respiration after an injection of 1-6 grain morphine. To investigate whether atropine is able to remove the disturbances caused by morphine, 1-60 grain of atropine was injected into the patient. If then it is true, as supposed, that the Cheyne-Stokes' respiration is the result of a diminished action of the respiratory centers, and atropine is able to stimulate this center, then it was to be expected that this symptom would disappear after the administration of atropine. But, as a fact, the very reverse occurred. The interruptions of breathing became so very long that a repetition of the experiment was considered dangerous.

The conclusion was then reached that, because atropine augmented the symptoms caused by morphine, that atropine produces the same results in respiration as morphine.

Further experiments showed that atropine if exhibited alone will also cause Cheyne Stokes' respiration. Hyoscine and duboisine had the same action.

Unverricht cautions against the use of these drugs as antidotes in morphine poisoning.

—*Centralb. f. Klin. Medezin.*

ANODYNE SALVE FOR HEMORRHOIDS:

℞.—Cocain. hydrochlor..... gr. xviij.
Morphinæ sulph..... gr. ivss.
Atropinæ sulph..... gr. iij.
Tannin..... gr. iijss.
Petrolati..... ℥v.
M.—Ft. ungt.
Sig. Apply after each evacuation.

—*Med. Chir. Centralblatt.*

TREATMENT OP PAINFUL HEART DISEASES WITH PISCIDIA ERYTHRINA.—Dr. Liegeois uses the following mixture:

℞.—Tr. piscid. erythr..... ..... ℥j, ℥vij.
Tr. veratri virid.,
Tr. aconit. rad.....āā ℥iij, gr. vj.
M.—St. Thirty drops morning and evening.

Piscidia erythrina does not cause gastric disturbance, is rather a laxative than constipating, has no influence on the action of the kidneys.

Its main principle, piscidin, slows the heart-beat and diminishes arterial pressure. It may be employed in neurasthenia, hysteria, chlorosis, and all such persons, who, without showing any anatomic cardiac disturbances, suffer from precardial anxiety and oppression of the heart.—*Muench. Med. Wochenschrift.*

Medical News and Miscellany.

A NATIVE *savant* has discovered tuberculosis in the rats that infest glue factories; and from this he will doubtless draw the conclusion that this is the source from which the human race derive this disease. Rats!

"WARBURG'S TINCTURE" contains quinine, with a variety of aromatic stimulants, and the combination has certainly worked wonders where quinine in other mixtures has failed to "show its paces." It should as useful in "grippe" for it has done yeoman's service, time and again, in old fashioned influenza, malaria, and like disorders.

PESSARY DON'TS.—Don't recommend a pessary for a woman unless she complains of pain in the back. In all our long and varied career we have the first woman to meet with who does not complain of her back, and a rigid adherence to this rule will not curtail your practice much, for you may safely count on getting in your pessary in ninety-nine and nine-tenths of your female patients.

Don't be afraid to overstate the mal-positions of your patient's uterus; if anything pleases a woman better than telling her she is afflicted with prolapsus, it is to tell her that she has retro-version, ante-version, prolapsus, and two or three flexions well developed, with a possibility of pyosalpinx. She will freeze to you for such a diagnosis and advertise you better than any newspaper interviewer.

—*The Country Doctor.*

DR. KEELY, the inventor of the bichloride of gold cure (?) for dipsomania, is reported to have disposed of his rights therein to "a syndicate of British capitalists." While admitting the urgent demand for a "cure for inebriety" over here, we are not sanguine enough to anticipate substantial dividends to the aforesaid capitalists.—*Med. Press and Circular.*

AN INDIANA FAIRY STORY.—The champion fairy story up to date has just been sent by dispatch from Indiana. The queer case of John Sousley, a farmer, living near South Bend, is attracting much attention. Sousley follows threshing in season, and quit last September with a badly-inflamed eye. It has pained him continually since, until yesterday an oculist found that a grain of wheat had lodged in his eye, sprouted, and its growth had forced a passage up between the scalp and skull, and had found an outlet near the apex of the right eye. The stalk was carefully removed and transplanted in a hotbed, where it is expected to grow. Sousley is doing finely.

IT is taken for granted that the idea of boiling water before using it as a beverage is of relatively recent date.

A manuscript, however, has just been discovered in the Khedive's library, at Cairo, which corrects this false impression. This manuscript treats of hygiene in Egypt, and is the work of a celebrated Arabian physician, Ebn-Radouan-el-Maszy. It bears the date of the year 460 of the hegira (1068).

In this manuscript, it is said, "that the best method of setting water free from principles injurious to health consists in first submitting it to the action of heat, by boiling it, then exposing it to the coolness of the night air, decanting it, boiling it a second time, clarifying it by mingling chalk with it, and finally filtering it through a porous jar exposed to the night air."

Water which has been thus treated, says the Egyptian physician, is ready for drinking.

WEEKLY Report of Interments in Philadelphia, from March 19 to March 26, 1892:

CAUSES OF DEATH.	Adults.	Minors.	CAUSES OF DEATH.	Adults.	Minors.
Abscess	1		Inanition		4
Alcoholism	2		Influenza	4	1
Apoplexy	10	1	Inflammation, brain	2	8
Asphyxia		2	" bronchi	6	8
Asthma	1		" kidneys	5	2
Anæmia	2	1	" heart	3	
Bright's disease	9	2	" lungs	31	31
Burns and scalds		1	" pericardium	1	
Cancer	10		" peritoneum	5	1
Casualties	4	3	" pleura	1	
Congestion of the brain	4	4	" s. & bowels	5	9
" " lungs	1	4	" rectum	1	
" " liver	1		" spine		1
Cirrhosis of the liver	2		Insanity	1	
Collapse of lungs		2	Indigestion		1
Consumption of the lungs	64	8	Jaundice		1
Convulsions		25	Locomotor ataxia	2	
Croup		17	Marasmus		8
Cyanosis		1	Measles		5
Debility	2	6	Neuralgia of the heart	1	
Diarrhœa	1	2	Obstruction of the bowels	18	
Diphtheria		18	Paralysis	7	
Disease of the heart	28	2	Rheumatism	2	1
" " kidneys	2		Septicæmia	2	1
Dysentery	2	2	Softening of the brain	2	
Epilepsy	2		Stricture of the œsophagus	1	
Erysipelas		2	Suicide	3	
Enlargement of the heart	2		Tabes mesenterica		1
Emphysema	1		Teething		2
Fatty degeneration of the heart	1		Tetanus		1
Fever, puerperal	2		Tumor		1
" scarlet		17	Unknown	1	
" typhoid	9	3	Uræmia	7	1
Gangrene	3		Whooping cough		1
Hemorrhage		3	Total	278	315
Hernia	1				

ST. LOUIS MEDICAL COLLEGE COMMENCEMENTS.—Three colleges have had their annual graduating exercises during the past week.

The St. Louis Medical College held its commencement at Memorial Hall, diplomas being conferred upon 18 young men, March 10.

The St. Louis College of Physicians and Surgeons held its exercises at Entertainment Hall, Exposition Building, on March 14. The number of graduates was 83 out of a total of 97 applicants.

The Missouri Medical College held its commencement exercises at Entertainment Hall, Exposition Building, on March 15. The number of graduates who received diplomas was 14.—*Weekly Med. Review.*

UNDER the provisions of the Army Appropriation Bill, reported by the Military Committee to the House of Representatives, the usual annual appropriation for the library of the Surgeon-General's office, United States Army, is cut down one-half, viz., from $10,000 to $5,000. If this is not changed, either in the House or in the Senate, the result must be that the formation of a complete medical library at Washington, which has been going on so successfully for the last ten years, must be stopped.

This is a curious instance of misapplied economy. Would it not be better to make the saving out of Dr. John S. Billings' salary? He is now Director of the University Hospital, and is apparently doing nothing for the Government in return for his pay.

ONE WAY OF PREVENTING VENEREAL DISEASE.—The Dutch colonial authorities have adopted a novel, if not exactly moral, mode of keeping down syphilis in their armies. Formerly venereal disease was very prevalent among the Dutch troops stationed in colonial garrisons, 211 cases in every 1,000 soldiers being the average number. This has been now reduced to only 75 per 1,000 by a system of what might be called enlisted prostitution. According to the *Lyon Mêdical*, each soldier in barracks is allowed to take a mistress from among the native women, and these are registered and subjected to military discipline. If taken sick they are treated in the army hospitals, and are reckoned in the non-combatant portion of the service. They number over 10,000, while there are about 30,000 soldiers. This is no doubt a very effective measure of prophylaxis for the men, but what about the ten thousand native women who are served up for the delectation of their Christian conquerors?—*Med. Record.*

THE best thoughts and the purest moments of a man's life may often come to him when he is afoot. The regular and gentle exertion of the movement gives the body just enough occupation to keep it out of the way of the mind. The heart acts fully, but not to excess; the lungs thoroughly aërate the blood, without becoming overcharged; the other organs discharge their functions with ease and lightsomeness. The little ducts of the skin breathe forth their moisture; the muscles glow and expand; and the brain, finding all well in the domain of its dependencies, turns to its affairs with joyous freedom and alacrity. At evening, what an appetite! At night, what sleep! Were any magical physician to invent an elixir which imparted a tithe of the vivifying virtue of a day's walk in the open air, he would be the Crœsus of pill-makers. How much would we give for a bottle of his concoction? And yet we may walk for nothing, and we may begin to-day; and the more we take of the prescription, the more solid and lasting will be the benefit we derive from it.

—Julian Hawthorne, in April *Lippincott's.*

A BENEFICIAL order, located in Boston, accepted a lodge in Philadelphia composed of Russian Jews. The members were entitled to draw benefits for sickness after two months' membership. Within three weeks from the lapse of this period, over forty per cent. of the members had applied for sick benefits.

In another order of this kind, a Russian Jew who was denied benefits for a sick claim of very gauzy texture, remarked to the officer who refused the application: "There's dynamite in this country, too; and you will see what a Russian Nihilist can do."

IS THE WRITER A BALD HEAD?—Dr. T. J. Hutton, of St. Paul Minn., sends us the following on "The Philosophy of Bald-headedness:" "Nature having fixed man's form to her satisfaction is now putting a head on him, enlarging and fertilizing his cerebrum. By fertilizing his cerebrum is meant increasing its productiveness, and by increasing its productiveness is meant enlarging the scope and intensity of thought and ideation. And this increased mental activity requires an increased supply of blood; for not only where there is literal irritation is there 'ubi fluxus,' but wherever there is increased bæmic cellular or molecular action of any kind, or from any cause, there also is 'ubi fluxus.' The average twelve-year old boy of to-day thinks more in one day, if he does not swear more also, than grandpa of a century ago did in a week. This increased brain activity requires, as we said, an increased supply of blood, hence a greater portion of the blood supply pumped into the carotids now goes to the brain proper than formerly, and hence a smaller portion now goes to the skull and scalp than formerly, so there is less pabulum to run to hirsute adornment than in ye olden time, and it constantly diminishes. We get brains for hair—a profitable exchange."—*Med. Record.*

AT a meeting of the Medical Faculty of the University of Pennsylvania held March 24, the following minute was adopted:

The Faculty of the Medical Department of the University of Pennsylvania desires to place upon record its profound grief at the irreparable loss sustained in the death of Dr. D. Hayes Agnew, and to express its thorough appreciation of the nobility of his personal character and the enduring excellence of his professional achievements.

Dr. Agnew was for years a regular attendant at the meetings of this faculty, and his wise counsel, his unswerving advocacy of every progressive movement, and of all that tended to raise the standard of teaching and of the profession, have left their indelible mark on the history of its proceedings.

As a didactic lecturer, he was unsurpassed. Without apparent effort and with a skill born of thorough knowledge and perfect mastery of his theme, each subject was presented to the student so clearly, simply and directly, that it remained a part of his medical knowledge.

As a clinical lecturer, his enormous experience and his diagnostic and operative skill made him pre-eminent. That skill, which amounted to genius, was the foundation of his scientific greatness and often enabled him at a glance to detect conditions that had eluded the search of others. No clinical observation, even in times long past, escaped his memory, and his experience, almost without exception, furnished a parallel to the rarest and most obscure cases. He had, in addition, the faculty of elucidating in a few words the methods by which he reached his conclusions, and this unusual combination of qualities gave him his unquestioned position as the leading teacher and practitioner of surgery in this country. His colleagues can bear witness to his warm friendship, which never failed in time of need; to his genuine love for his work and his eager desire to acquire every new fact that might benefit his patients; to his generous support of the feeble, the halting and the unfortunate in the profession; to his respect for every honest opinion, even if it differed from his own; to his quick and ready sympathy and his tender treatment of all those who claimed either his personal or professional help. His gentle courtesy and kindly bearing won the love of all with whom he came in contact. To the members of this Faculty, his students of years gone by, his colleagues of yesterday and always his loving friends, his death comes as a personal bereavement.

Resolved, That a copy of this minute be sent to the family of Dr. Agnew, and that it be suitably published.

JAMES TYSON, *Dean.*

MARCH, 25, 1892.

THE PAN-AMERICAN MEDICAL CONGRESS.

The Committee on Permanent Organization met at St. Louis, October 14, 15 and 16, 1891, and adopted a series of General Regulations for the permanent organization of the Pan-American Medical Congress, and a series of special regulations for the government of the first meeting, and recommended that the incorporators adopt both series of regulations as the organic law of the Congress.

Pursuant to such regulations the following general officers were elected, viz.:

William Pepper, M.D., LL.D., Philadelphia. Pa., President; Abraham M. Owen, A.M., M.D., Evansville, Indiana, Treasurer; Charles A. L. Reed, Cincinnati, Ohio, Secretary-General.

International Executive Committee: *Argentine*, Dr. Pedro Lagleyze; *Bolivia*, Emilio de Tomassi; *Brazil*, Dr. Carlos Costa; *British North America*, Dr. James F. W. Ross; *British West Indies*, Dr. Jas. A. De Wolf; *Chili*, Dr. Moises Amarl; *Colombia*, P. M. Ibañez; *Costa Rica*, Dr. D. Nuñez, *Ecuador*, Dr. Ricardo Cucalon; *Guatemala*, Dr. Josê Monteris; *Haiti*, Dr. D. Lamothe; *Hawaii*, ; *Spanish Honduras*, Dr. George Bernhardt; *Mexico*, Dr. Tomas Noriêfia; *Nicaragua*, Dr. Juan I. Urtecho; *Paraguay*, ; *Peru*, Dr. José Cassamira Ulloa; *Salvador*, Dr. David J. Guzman; *Santo Domingo*, ; *Spanish West Indies*, Dr. Juan Santos Fernandez; *United States*, Dr. A. Vander Veer; *Uruguay*, Dr. Jacinto De Leon; *Venezuela*, Dr. Elias Rodriguez; *Danish, Dutch and French West Indies*,

The Auxiliary Committee nominated by the various members of the Committee on Permanent Organization each for his own State, and already commissioned by the Chairman, was confirmed.

The election of officers of sections was begun, but time would not permit of the completion of the list, which was referred to a special committee with power to act. It has been deemed inexpedient to publish the list until it is completed, which can hardly be accomplished before the meeting of the Committee on Permanent Organization at Detroit, in June; but the organization of particular sections will be announced through the medical press as rapidly as officers are elected by the special committee.

In accordance with the wish of the Committee on Permanent Organization as expressed in Special Regulation No. 4, Drs. I. N. Love, A. B. Richardson, L. S. McMurtry, R. B. Hall, T. V. Fitzpatrick and Charles A. L. Reed met in Cincinnati and signed the legal form of application for articles of incorporation of the Pan-American Medical Congress, which articles of incorporation were duly issued by the Secretary of the State of Ohio, under date of March 15, A. D. 1892.

At a meeting of the incorporators held March 16, 1892, the following regulations, general and special, recommended by the Committee on Permanent Organization were formally adopted as the organic law of the Pan-American Medical Congress in accordance with the laws of Ohio, and all elections had by the Committee on Permanent Organization, in accordance with such regulations were confirmed and made a part of the laws of the Congress.

GENERAL REGULATIONS.

1. *Title.*—This organization shall be known as "The Pan-American Congress," and shall meet once in —— years.

2. *Membership.*—Members of the Congress shall consist of such members of the medical profession of the Western Hemisphere, including the West Indies and Hawaii, as shall comply with the special regulations regarding registration, or who shall render service to the Congress in the capacity of foreign officers.

3. *Officers.*—The Executive Officers of the Congress shall be residents of the country in which the Congress shall be held, and shall consist of one President, such Vice Presidents as may be determined by special regulations, one Treasurer, one Secretary-General, and one Presiding Officer and necessary Secretaries for each section, all of whom shall be elected by the Committee on Organization, and there shall be such Foreign Vice-Presidents, Secretaries and Auxiliary Committees as are hereinafter designated.

4. *The Committee on Organization.*—The Committee on Organization shall be appointed by the representative medical association of the country in which the Congress shall meet. This committee shall select all domestic officers of the Congress, and shall, at its discretion, confirm all nominations by members of the International Executive Committee, and in the event that any member of the International Executive Committee shall fail to nominate by the time specified by special regulation, the Committee on Organization shall elect officers for the country thus delinquent. It may appoint Vice-Presidents and Auxilliary Committeemen in foreign countries independently of nominations by the members of the International Executive Committee. It shall appoint Auxiliary Committees, arrange for the meeting, and frame special regulations for the session of Congress for which it was appointed. It shall make a report of its transactions to the opening session of the Congress.

5. *The International Executive Committee.*—There shall be an International Executive Committee which shall be appointed by the first Committee on Organization, and which shall consist of one member for each constituent country. This committee shall hold permanent tenure of office except that when a member shall fail to be present at a meeting of the Congress, his office shall be declared vacant, and the vacancy be filled by election held by the registered members from the country from which he was accredited. In the event of no representation whatever from the country in question, the members of the International Executive Committee present shall determine what disposition shall be made of the office.

It shall be the duty of each member of the International Executive Committee to nominate from the medical profession of his country, one Vice President for the Congress and one Secretary for each section of the Congress, and to forward the same to the Chairman of the Committee on Organization; except that in any country in which the Congress shall meet, it shall be the duty of the member of the International Executive Committee for that country to request his representative national medical association to appoint a Committee on Organization, which Committee on Organization shall discharge the duties designated in Regulation IV. Members of the International Executive Committee shall also nominate such Auxiliary Committees, and shall furnish such information as the Committee on Organization may request.

6. The Committee on Organization may at its discretion cause the Congress to be incorporated, which corporation shall hold only until the final disbursement of funds for the session held in that particular country. In the event of such incorporation such officers shall be elected and in such manner as may be required by law.

7. The following shall be considered as the constituent countries of the Pan American Medical Congress:

Argentine Republic, Bolivia, Brazil, British North America, British West Indies (including B. Honduras), Chili, Honduras (Sp.), Mexico, Nicaragua, Paraguay, Peru, Salvador, Colombia, Costa Rica, Ecuador, Guatameala, Haiti, Hawaiian Islands, Santo Domingo, Spanish West Indies, United States, Uruguay, Venezuela, Danish, Dutch and French West Indies.

8. The Sections of the Congress shall be as follows:

(1) General Medicine.
(2) General Surgery.
(3) Military Medicine and Surgery.
(4) Obstetrics.
(5) Gynæcology and Abdominal Surgery.
(6) Therapeutics.
(7) Anatomy.
(8) Physiology.
(9) Diseases of Children.
(10) Pathology.
(11) Ophthalmology.
(12) Larynxology and Rhinology.
(13) Otology.
(14) Dermatology and Syphilography.
(15) General Hygiene and Demography.
(16) Marine Hygiene and Quarantine.
(17) Orthopædics.
(18) Diseases of the Mind and Nervous System.
(19) Oral and Dental Surgery.
(20) Medical Pedagogics.
(21) Medical Jurisprudence.

9. *Languages.*—The languages of the Congress shall be Spanish, French, Portuguese and English.

10. *Auxiliary Committees.*—The Auxiliary Committee shall consist of one member for each medical society or one for each considerable center of population in each of the constituent countries of the Congress. Nominations for the Foreign Auxiliary Committee shall be made to the Chairman of the Committee on Organization by the members of the International Executive Committee, each for his own country, except that in the country in which the Congress is to be held nominations shall be made by the Committee on Organization. Appointments on the Auxiliary Committee shall hold only for the meeting for which they were made.

Members of the Auxiliary Committee shall be the official representatives of the Congress in their respective localities. It shall also be their duty:

(1) To transmit to the profession of their respective districts all information relative to the Congress forwarded to them for that purpose by the General Officers.

(2) To co operate with the Officers of Sections in securing desirable contributions to the proceedings of the Congress.

(3) To furnish to the General Officers such information as they may request for the purpose of promoting the interests of the Congress.

(4) To cause such publicity to be given to the development of the organization as will elicit the interest of the profession and secure attendance upon the meeting, and they shall discharge such other duties as will promote the welfare of the Congress.

SPECIAL REGULATIONS OF THE FIRST CONGRESS.

1. *Time and Place of Meeting.*—The First Pan-American Medical Congress shall be held in the city of Washington, D. C., September 5, 6, 7, 8, A.D. 1893.

2. *Registration.*—The Registration fee shall be $10.00 for members residing in the United States, but no fee shall be charged to foreign members. Each registered member shall receive a card of membership and be furnished a set of the transactions.

3. *Abstracts, Papers and Discussions.*—Contributors are required to forward abstracts of their papers, not to exceed six hundred words each, to be in the hands of the Secretary-General not later than the tenth of July, 1893. These abstracts shall be translated into English, French, Spanish and Portuguese, and shall be published in advance of the meeting for the convenience of the Congress, and no paper shall be placed upon the programme which has not been thus presented by abstract. Papers and discussions will be printed in the language in which they may be presented. All papers read in the Sections shall be surrendered to the Secretaries of the Sections; all addresses read in the General Session shall be surrendered to the Secretary-General as soon as read; and all discussions shall be at once reduced to writing by the participants.

4. *Incorporation.*—The Chairman of the Committee on Organization shall cause the Congress to be incor porated under the laws of Ohio, and fifteen trustees shall be elected in accordance therewith, who by by-laws and through the Executive Committee shall supervise all receipts and disbursements by the Treasurer in accordance with the laws of Ohio. The President, Secretary-General, Treasurer, the member of the International Executive Committee for the United States, and Chairman of Sections shall be *ex-officio* members of the Board of Trustees.

5. *Foreign Nominations.*—All nominations by the International Executive Committee must be in the hands of the Chairman of the Committee on Organization by June 1st, 1892, and in default thereof the Committee on Organization shall elect officers for countries thus delinquent.

6. *The Organization of Sections.*—The officers of each section shall consist of——Honorary Chairmen, who shall be residents of the constituent countries of the Congress; one Executive Chairman, who shall organize the work of the section, direct its deliberations, and deliver an inaugural address at its opening session; one English-speaking Secretary and one Spanish-speaking Secretary, residents of the United States, who shall co-operate with the Executive Chairman in conducting the correspondence of the section; and there shall be one secretary for each section, resident in each additional constituent country of the Congress.

7. *Domestic Auxiliary Committee.*—The Auxiliary Committee for the United States shall be elected by the Committee on Organization and shall consist of one member for each local medical society, or, in the absence of medical organization, then one in each considerable center of population, which Auxiliary Committee shall co-operate with the Committee on Organization and with the General Officers in promoting the welfare of the Congress. Nominations for the Auxiliary Committee shall be made by members of the Committee on Organization, each for his own State, except that in the failure of any member to make such nomination by January 1, 1892, or in the inadequacy of the same, the Chairman of the Committee on Organization shall supply the deficiency.

8. *Executive Committee.*—The Board of Trustees shall designate seven members, including the President, Treasurer, Secretary-General, and member of the International Executive Committee for the United States, who shall comprise an Executive Committee which shall transact all business of the Congress *ad interim* in accordance with by-laws adopted by the Board of Trustees.

9. *Amendments.*—Amendments to these regulations can be made only by the International Executive Committee on a majority vote, ten members constituting a quorum, at any meeting of the Congress.

Pursuant to the Laws of Ohio and the Regulations adopted as above, and in accordance with nominations by the Committee on Permanent Organization, the Incorporators elected fifteen Trustees, as follows:

Dr. W. T. Briggs, Tenn.; Dr. Geo. F. Shrady, N. Y.; Dr. P. O. Hooper, Ark.; Dr. S. S. Adams, D. C.; Dr. H. O. Marcy, Mass.; Dr. J. F. Kennedy, Iowa; Dr. H. D. Holton, Vt.; Dr. L. S. McMurtry, Ky.; Dr. N. S. Davis, Ill.; Dr. Levi Cooper Lane, Cal.; Dr. I. N. Love, Mo.; Dr. Hunter McGuire, Va.; Dr. J. C. Culbertson, Ill.; Dr. A. Walter Suiter, N. Y.; Dr. C. H. Mastin, Ala.

Drs. L. S. McMurtry (Ky.), I. N. Love (Mo.), and W. W. Potter (N. Y.), were designated to act as members of the Executive Committee.

The organization of the Congress is complete in British North America, the British West Indies, the Spanish West Indies, Guatemala, Nicaragua, United States of Columbia, Brazil, Uruguay, Venezuela and the Argentine. It is confidently expected that the nominations from the remaining countries will be in by June.

It is expected to announce the completed organization of the Congress, its sections and auxiliary committees, domestic and foreign, by July 1, 1892.

On behalf of the Committee on Permanent Organization, CHARLES A. L. REED, *Chairman.*
J. W. CARHART, *Secretary.*

Army, Navy & Marine Hospital Service.

Changes in the Medical Corps of the U. S. Navy for the two weeks ending March 26, 1892.

MARSTELLER, E. H., Passed Assistant-Surgeon. Ordered to duty at the Naval Academy.

ARNOLD, W. F., Passed Assistant-Surgeon. From the "Vermont," and to the "Richmond."

LOWNDES, C. H. T., Assistant-Surgeon. From the "Richmond," and to the "Vermont."

DICKINSON, D., Surgeon. From the Navy Yard, Mare Island, and two months' leave.

MOORE, A. M., Surgeon. From Naval Hospital, Mare Island, and to Navy Yard, Mare Island.

NORFLEET, E., Surgeon. From the U. S. S. "Monocacy," and granted three months' sick leave.

SMITH, G. T., Assistant-Surgeon. From the U. S. S. "Mohican," and to the U. S. S. "Hassler."

YOUNG, L. L., Assistant-Surgeon. From the "Independence," and to the "Mohican."

SCOFIELD, W. K., Medical Director. Granted one year's leave of absence, with permission to leave the United States.

HOEHLING, A. A., Medical Inspector. Ordered as president Naval Medical Examining Board.

NEILSON, J. L., Surgeon. Ordered as member and recorder of Naval Medical Examining Board.

WALTON, T. C., Medical Inspector. Granted six months' extension of leave, with permission to remain abroad.

APPOINTMENT.

BAGG, CHARLES PERRY, of Los Angelos, Cal. Commissioned an Assistant-Surgeon in the Navy.

Special Article.

THE TYPHUS FEVER IN NEW YORK.

THE fever was imported into New York by the steamer Massilia, in the first week of February. The Massilia brought a large number of immigrants, Italians and Russian Jews. The latter had been driven out of their homes and had sojourned for some time in Constantinople, where the Jewish quarter is notorious as a nest of typhus. The surgeon of the steamer certified to the health of the immigrants in the usual manner, and they were passed by the quarantine officials. On the eleventh of February, four cases of "typhoid fever" were reported to the New York Health Office, from 42 East Twelfth street, a lodging house filled with Russian Hebrew immigrants. This awakened the suspicions of Dr. Edson, the Health Officer, who went at once to inspect the house, in which he found no less than fifteen cases of typhus fever, among the passengers of the Massilia.

From this time on, every effort was put forth to run down every possible case of typhus, and to locate and place under competent professional surveillance every person who had been exposed to the infection. At the first sign of typhus the patient was removed; while all goods, such as furniture, bedding and clothes, that had come in contact with the sick, was either destroyed or thoroughly disinfected.

Dr. Edson does not trust disinfection by sulphur fumigation, even if steam be employed at the same time. Whenever it is possible, the articles to be disinfected are placed in antiseptic solutions, and the same applications are used for the walls, ceiling and floor of an infected room. The New York Health Office has a complicated apparatus in which articles can be subjected to a high degree of heat (nominally 240°F.), while a current of hot air is driven through by a fan. This is supposed to insure throrough penetration; but the apparatus is not advocated very warmly by the New York health authorities.

The danger was considered so menacing that extraordinary means were instituted to meet it. Ten additional medical inspectors were employed, taken from the summer corps of vaccinators, who had had experience in dealing with the classes among whom the immigrants had been received. As typhus is not infectious during the incubative period, those who had been exposed were kept under surveillance. Those who had no fixed habitations were quarantined; a large number being sent to the Homœopathic Department of the City Hospital on Ward's Island. The experience of the health office shows that the incubative period does not continue more than sixteen days; but as some authorities extend this period to three weeks, the quarantine was continued to this time. With the Russian Hebrews the work was easy, as the immigrants were under the control of the managers of the Hirsch fund, and had kept together. The board was also rendered efficient assistance by the United Hebrew Charities; which also provided a full supply of table-ware and kitchen utensils, and also the "kosher" meat for the use of their co-religionists during the whole of their stay at the hospitals and quarantine stations.

Much more trouble was experienced with the Italians, to which nationality over 200 of the Massilia's passengers belonged. These people had scattered not only over the city, but the country. As New York City has over 100,000 Italian residents, the task of passing these in review was very great, especially as they are not in harmony with the Health Office authorities. Fortunately, there were only three cases of typhus among the Italians, or the work might have been almost impossible. Doubtless this hostility is largely due to the lack of such organizations as the United Hebrew Charities among the Italians, and to the scarcity, also, of cultured and intelligent men among them, like the prominent Hebrews of our great cities, through whose influence the efforts of the Health authorities would be comprehended and appreciated. No such antagonism is manifested by the Italian residents of Philadelphia. So successful were the efforts of Dr. Edson and his assistants, that at the writer's visit he was assured that "typhus did not exist in New York City;" it had been completely stamped out. The only cases reported subsequently have been among the attendants on the sick at the hospital; and as the incubative period has now passed, the only remaining danger lies in the remote possibility that some germs of typhus in the immigrants' effects may have escaped the disinfecting processes. This is, to say the least, not likely.

Up to March 17 there had been 154 cases in New York, of which 118 were among the Massilia's passengers, and 36 among residents who contracted the disease from the former. Cases were also reported at Newburgh, N. Y.; Providence, R. I.; Kinderhook, N. Y.; Oakdale, Mass.; Pittsburgh, Pa., and St. Louis, Mo. Thirty per cent. of the cases were in children. The death-rate of the adults was about 18 per cent., and was higher in the residents than in the immigrants. This is a curious instance of the increased resisting power acquired by exposure, as in physique the immigrants were not comparable to our citizens.

New York is fortunate in having an ideal site for the location of a hospital for contagious diseases; on North Brothers Island. The last of the chain of islets in the East river, situated at the entrance of Long Island Sound, is alike removed from the possibility of endangering the city or the shipping in the river. The insular location renders isolation easy, while the sick can be removed to the island by water much more comfortably than by a long ride in an ambulance over the streets. On this island are located separate hospital buildings for small-pox, scarlatina and measles. Typhoid fever cases are not removed to this hospital, unless in exceptional cases. At first the typhus cases were accommodated in tents, but pavilions were quickly erected. These were constructed on the plan made famous during the great rebellion. They are built of wood, plastered inside, are one story high, and contain twenty-eight beds each, besides bath and lavatory rooms, nurses' quarters, etc. On the day on which the writer visited the hospital, March 17, the weather was quite inclement, but the pavilions were well warmed and the ventilation excellent. Provision was also made for a much larger number of cases, if they should be discovered. Radiators were put up on the platforms built for floors, and tents erected over them. The radiators have been connected with the steam boilers on the island, so that the tents can be comfortably warmed.

Through the kindness of Dr. Edson, the writer obtained leave to visit the hospital on North Brothers Island. Access is difficult to a visitor, the pass being demanded at the wharf, when a row-boat is summoned from the island by an electric bell. The visitor was courteously received by the medical officers in charge, Dr. Percival and his assistant. Before entering the wards, the outer-clothing was removed, and each person enveloped in a voluminous cotton gown. After coming out, the exposed portions of the

body were washed with bichloride solution. Patients were seen in every stage of the disease, from a helper who had just been reported ill on the previous day to those that were convalescent. In every ward the nurses were found in attendance, and no evidence of lack of care could be seen. Some of the convalescent men displayed a little impatience, in demanding food that they were obviously not in condition to have.

The cases appeared to be, generally, of a mild type. Few presented the flush of the forehead, or injected eyes, to a very marked degree. The eruption was profuse, even for typhus; the marbling of the skin not well marked. During the first day the eruption was said to disappear on pressure, and this was shown in the case of the helper, mentioned above. Vibices and ecchymoses were not seen. The delirium was said by Dr. Edson to be peculiarly quiet. This he attributed to the nativity of the sufferers, their spirits being so broken by tyranny that even in delirium they were repressed and obedient. His observation is as follows:

"There is one thing which has been noticed among these patients which is to the last degree strange from the standpoint of the physician. I have spoken of the delirium of typhus and of its intense character. Ordinarily speaking, this delirium is very active, the patient,—especially if he be an Irishman or an American—is kept in bed with difficulty; he talks about his business, his troubles, his private affairs continually, unceasingly. I say if he be Irish, for this intense activity of mind when the patient is delirious, and of body, too, for that matter, is more noticeable among them than among any other race. The French come next. But the English, the Germans, Spaniards or Italians show the same thing and need constant watching, especially to keep them in bed. In the cases of these Russian Hebrews the observed effects are all reversed. They are phlegmatic, dull, stupid, apparently; they talk little if any, and they lie, for the most part, quietly in their beds or toss from side to side without attempting to get up. When the mind is in that semi-conscious state in which impressions may be conveyed to it and partly understood, these Russians obey orders at once without protest. It is enough for them that any one seeming to have authority should command.

"To me, this is not only interesting from the point of research into the disease and its many manifestations. It is profoundly pitiful as well. What centuries of oppression, what countless deeds of tyranny for which there was no redress have been needed to so utterly destroy the free will in these unfortunates that it may not manifest itself even in delirium, when all consciousness of power in others is removed! It seems to me that in the dull, stupid condition of their minds there exists the most awful indictment against the government which has trampled on the free will, the manhood, the right to initiate action for themselves, of these people and their ancestors that has ever been drawn up. And while this indictment may never be presented before an earthly court, while no prosecuting attorney may be found who will urge from it the penalty of the law, I can yet believe there is a court where it will appear, and a Judge who will convict and sentence! Poor, miserable, oppressed people; ground down for generations, until they lie on those beds at North Brothers Island, furnished for them by the kindliest charity, and yet they still fear!"

In the treatment, general principles were followed. Fever was met by phenacetine, in 10 grain doses; hyperpyrexia, by wet packs; delirium by ice-caps. The diet was mainly of milk. In several cases a special antiseptic treatment had been pursued.

At the time of this visit charges had been made against the hospital administration by the reporter of a daily journal, and an investigation was in progress. It was stated that the nurses neglected the patients and that Dr. Percival had not entered the wards, etc. During the writer's visit, every ward had its nurses on duty, although they were not and ought not to be standing by the patients' bedside continuously. The number of these devoted attendants who have been attacked with the fever, should be a sufficient answer to the charges of neglect. As to the physicians, there are three of them on the island, who divide the duties. It is so obviously improper for the one specially assigned to attend small-pox, to frequent the wards of typhus or scarlatina, when he was not needed, that the charge against Dr. Percival might be true and still not reflect any discredit upon him. The writer has had some experience in hospital affairs, and, having read the newspaper criticisms, looked curiously for faults of administration but found none. Having had some experience likewise with the newspaper man in search of a sensation, he places very little reliance in the story, even when backed up by the evidence of a few discharged employés and patients of a race who, as Mackenzie Wallace states, will make any statement they think is acceptable to the questioner.

The insular location of this hospital for contagious diseases has so many advantages that it would be well to consider its feasibility for our own city. Property owners in the neighborhood of the Municipal Hospital have long desired its removal; and it is certain that it keeps a large body of land out of the market that would otherwise be quickly utilized for building sites. Some years ago Major Veale recommended the removal of this hospital to Petty's Island. The objection to this location is the difficulty of access in winter, when the river is full of ice; but this so rarely occurs that it would not outweigh the great advantages of the site.

The history of this fever importation should also direct attention to the status of the steamship surgeon. The port physician blames the surgeon of the Massilia with deception, and has announced that his certificate of good health will not be received as evidence on the return of this steamer. But every one who knows the dependent position of the surgeon will understand that to report typhus would expose him to the almost certain penalty of dismissal. It is true, this does not excuse a dereliction that has cost several lives, and exposed the country to a grave danger. But with human nature as at present constituted, it is wise to render the man of whom such a duty is demanded free in the exercise of that duty.

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